

Running Head: HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING FOR PATIENTS,
MEDICAL STAFF AND THE COMMUNITY AT LARGE?

A THESIS

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Chapter 1

Introduction

Beginning in the Neolithic period, roughly 4000 BCE, man began giving architectural permanence to transcendental ideas, with the design goal of enhancing their health and wellbeing. The earliest buildings of humans, with a specific function, were religious (Fletcher, 1996). Design of these architectural mediators has responded, much like contemporary religious design, to a myriad of influences, such as the natural environment, fear of the supernatural, available materials, and most importantly and common to all religions is the goal of the design to deepen the understanding of human sickness, death and the afterlife. This searching for architectural expression of transcendental ideas that give meaning to the complexities of life continues with the unique meeting of religion and science in the present day architectural type of the healthcare chapel.

Science is based on facts derived from testing where religion is less tangible and is based on shared belief that gives culture through myth and ritual. Often explained through architecture and art, life practices, such as food, children and death, are codified and reasoned through religion (Bowker, 1997). Where religious practice differs from religion to religion, illness, aging and the fragility of the body are common to all humans. When these commonalities occur in human life, they often introduce a conflict between wellbeing and the physical world. In response to this universal conflict, solace is often found in sacred spaces and activities, such as prayer and contemplation. Sacredness in spaces is dependent on religious views, culture and personal experience (Rappaport, 1999). Utilizing a varied cultural understanding, the well-

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designed healthcare chapel, serves as a sacred meeting place where this conflict of life and illness can be encountered safely within the healthcare facility. As noted by Rappaport's tenants above, the opportunity for individual solace and healing can be given cultural form through the architectural articulation of the healthcare chapel which in turn will aid in the enhancement of wellbeing.

Wellbeing has an impact on the individual which influences the overall healthcare system. The contemporary healthcare size and scope of impact can be described by sheer financial cost, for example, in governmental spending. The contemporary healthcare system, which in 2017 cost the United States government over three trillion dollars in the form of health programs and tax incentives (Initiative, 2018). The expense is causing a rethinking of all aspects of care as exemplified by changing the way medical education, preventive care and treatments are delivered to the public. The cost of healthcare has sought more economical and readily available solutions which include the promotion of wellbeing and providing more chaplaincy involvement in patient care. Healthcare in America is complicated due to many factors, among which is the governmental influence through Medicaid/Medicare and the private or for-profit influences of healthcare insurance companies. In addition to these influences, is the rapid nature of scientific research and its implementation over the past one hundred years. These factors and influences continue to create a culture of need for constant change and costly updating in the healthcare facility (George Washington University School of Business, 2019). Reacting to the rapid change and advancement of healthcare in general, medical facility architectural design is adapting to emerging knowledge and economies. In contrast, unlike the fast-changing healthcare field, the chapel is seemingly static and unresponsive to the contemporary pressures of emerging data

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concerning wellbeing's influence on the individual's health and the needs of the medical community's desire in providing holistic care.

When addressing the current complicated healthcare system and the possible use of architecture rectifying negative influences, Architect David F. Chambers states, "Architecture today is not seen as an important part of the healthcare delivery system.... But architecture is an unexpected point of leverage for intervening in the current situation....and can play a pivotal role in breaking free from the present mess." (DiNardo, 2015) Within the healthcare facility lies the static chapel waiting to be energized and given a deeper meaning by architecture. Within the healthcare chapel architecture wellbeing, if addressed properly, aid in healing.

Wellness and the practice of holistic health, which have strong tenants about encouraging spirituality or religious practice, has increased in understanding and validity. This increase in understanding is evidenced by the relatively recent modern words "wellness" or "wellbeing" brought into the English language in the 1950s (Zimmer, 2010). The chapel, and the architectural environment it creates, could have a large impact on the wellbeing of the patient and medical staff, having far reaching effects. The noted neuroscientist, Dr. Fred Gage, demonstrates the chapel's positive impact by stating that the environment not only effects our behavior but also effects the brain's ability to grow, adapt and change (Gage, 2003). Others join Gage, like John Zeisel, who states, a well-planned environment has taken into consideration the mind of an individual and their desired behavior to achieve a positive quality of life, spur creativity and encourage growth (Zeisel, 2006). Karl Johnson enhances the observation by including aesthetics and stating, "Good or beautiful spaces go beyond aesthetics by actually honoring and benefitting the ones that use the space" (Johnson, 2013, pp. 11,12). The irony is that the small and often existing chapel space, with design enhancements, could have a dramatic

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healing effect on the patient and offer a place of respite to an often-overlooked and often-bewildered medical staff.

In conclusion, existing healthcare facilities commonly have an overlooked chapel space that is hidden, understated and misunderstood; but new research is discovering that the chapel could be the genesis and maintainer of the all-important health influencer, wellbeing. The healthcare facility's chapel's identity should be understood as a treatment center that has instrumental services provided to patients and medical staff, with positive rippling effects into the community.

Existing Literature

The World Health Organization, WHO, defines the mission of healthcare as treating the whole person: their physical, mental and social wellbeing (Constitution of the World Health Organization: Principles., 1948). The positive influences of wellbeing on an individual's health are only presently being understood (Astrow, 2001). Wellbeing has now become a national interest and is being measured and quantified by United States Centers for Disease Control and Prevention, CDC, to fully assess medical and healthcare concerns (Appendix H). The CDC concludes that the wellbeing of an individual is parallel to many measurable factors, among the closest though, is an individual's health (United States Center for Disease Control and Prevention, 2019). For a person to be capable and coherent in contemplating their own wellbeing, a brain design collaboration of neuroscience research emphasizing sensory testing and design research presentation would need to be present in the physical environment (Zeisel, 2006). Wendy Cadge states that there are three influences for the chapel's impact: first is the influence of the sponsorship, religious or governmental, of the facility, second influence being

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the role of a religion in a culture's beliefs within the facility and third, having the physical facilities or architectural space to promote wellbeing (Cadge, 2012). Building on the importance of wellbeing and Cadge's reasoning on the success of chapels, my research narrows to focus on the design of medical facility chapel's role in aiding in the cultivation of positive wellbeing of the individual. Healthcare, chapels and wellbeing seem disparate, they are related and intertwined as this following research will examine. To comprehend, or begin to comprehend, the complex relationships implied by my research question and state the existing literature in a straightforward manner, it will be beneficial to deconstruct the research question into a series of separate words. The following information is presented based on continuing to use the separate words "chapel", "wellbeing", "healthcare chapel", and the differing chapel user groups: patient, medical staff and caregiver. This paper will present common definitions in contemporary literature for chapel, sacredness, differing religions, awe and wellbeing.

Chapel. First a review of chapels, the architectural historical lineage and precedent of the typical modern medical chapel in western civilization can be found in emerging fourteenth and fifteenth century monastic chapels of Europe. The architectural lineage can be demonstrated by the derivation of the word *chapel*. *Chapel* derives from the Late Latin word for garment, *cappella*, or Saint Martin of Tours' garment. Christian tradition holds that Saint Martin (316 AD-397 AD) offered half his garment to a beggar. This garment was later associated with several miracles. The word evolved into old French as *Chappelle* and the English version became *chapel*. The garment of Saint Martin became a relic and was enshrined in a smaller area of an early fourth century monastery founded by Saint Martin. Keepers of the shrine were under royal protection and became known as Chaplains (Caballero, 2016).

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Beginning around the fifth century limited healthcare was provided by the emerging Christian convents and monasteries. Understandably due to their function as more of a religious institution, sacred and prayer spaces were architecturally and artistically dominant to any space for medical care. Healthcare was secondary or a byproduct to the spiritual focus of the convent or monastery (Kisacky, 2017). Europeans sought healthcare via the convent or monastery because this is where the small amount of medical expertise and knowledge existed. The small amount of healthcare knowledge was very limited in Europe in the Middle Ages and what was knowable was provided by the Byzantines. The remnant of the Roman Empire collected and disseminated medical knowledge through costly books across southern Europe and northern Africa. This architectural arrangement of healthcare subservient to spiritual care was to be consistent throughout Europe until the Enlightenment, where the medical care facility began to be physically separate from the Church (Porter, 1997).

Medical care in the Middle East grew under the late Byzantine Empire and Ottoman Empire. While most hospitals were used for housing lepers and the mentally insane, the first general hospital was built by Harun Al-Rashid in the ninth century. There was no chapel located within the Muslim hospital, possibly demonstrating the early Islamic belief on the correlation of sickness or uncleanness with spiritual purity. Asian and African medical facilities were limited to home care until the seventeenth century, when Christian monastic missionaries established hospitals (Kisacky, 2017). Christians see healthcare and service to the sick as part of their responsibility and duty as a Christian.

Wellbeing. Religions attempt to give definition to wellbeing but typically find foundation in the concepts of personal spirituality and an individual's ability to physically and metaphorically encounter sacredness. Though there are differing definitions of wellbeing, this

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research will try to limit the idea of wellbeing to the 2016 work of Hamilton Inbaldas and to the definition that understands it as spirituality interchangeable with wellbeing. He further elaborates wellbeing as the measure of the inner essence of life, a dimension of the whole person, that is universal, integral to and interacts with all other aspects of life, both health, physical and psychosocial (Inbaldas, 2016). Spirituality or obtaining wellbeing is a universal concept, as is its commonly held belief of wellbeing's relationship to healthcare (Swinton, 2010).



Figure 1 Graph demonstrating the complexity of wellbeing (Rowing Australia, 2019).

As reported by the progressive Templeton Foundation, the validity of wellbeing is being accepted by the medical community as a major contributor to health and behavior, there are complexities in measuring an individual's wellbeing (The Templeton Foundation, 2019). For accuracy and to be considered scientifically valid, measuring the wellbeing of individuals and the methods of measuring are under constant research scrutiny. A major contributor to this important data is the United States Center for Disease Control and Prevention(CDC), through the Department of Health-Related Quality of Life (Appendix H). These departments seek to disseminate data on wellbeing that would be instrumental forming public policy and informing

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major stakeholders in the healthcare fields of emerging information (United States Center for Disease Control and Prevention, 2019).

Ed Diener and Martin E.P. Seligman's study of wellbeing and the effects wellbeing has on the society was instrumental in changing attitudes towards the importance of monitoring and promoting wellbeing. Their study was aimed at the importance of wellbeing being incorporated into political and cultural decisions documenting the conclusion of vast amount of data. A person who has a positive wellbeing is more social, organized, productive and healthier. Another interesting conclusion was wellbeing is a characteristic that not only has ramifications on health but also on one's ability to be financially successful. (Ed Diener, 2004) This study points to the importance of the healthcare chapel as an opportunity to promote wellbeing. The user of the chapel physical and emotional health most likely to be a crisis mode, conversely, so is their wellbeing.

Healthcare.

Historical precedence: the chapel in healthcare. When surveying the current literature on the healthcare chapel and as mentioned above, discoveries have been made realizing that the chapel's architectural precedent is in Christian monasticism's healthcare service of the Middle Ages, demonstrating the religious association with healthcare is long established (Baker Christopher, 2017). (Bowker, 1997) (Fletcher, 1996) The healthcare chapel continues to face new challenges as the understanding of wellbeing's impact on health has developed and the religious diversity of America grows.

As Inbaldas stated in his earlier quoted wellbeing definition, that the differing aspects of the whole person are interdependent, as in spirituality affecting the physical (Inbaldas, 2016). Religion has a large influence in wellbeing because of religion's relationship with the sacred via

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religion (Rappaport, 1999). Wellbeing is nurtured and matures in participation with or encountering ideas of sacredness, either physically or metaphorically (Kelter, 2003). Physically and metaphorically, the individual is encouraged to contemplate the sacred in a well-designed chapel. Religion is not always a positive influence, T.J. VenderWeele reported that religion could have negative impacts on healthcare when medical treatments are interrupted or ended due to religious beliefs (VanderWeele TJ, 2017). The amount of influence religion has on an individual's wellbeing could be, as reported by Dr. Andy Tix in *Psychology Today*, a mix of three widely accepted theories. The theories 1) are a tendency to be religious is in part a genetically inherited trait, 2) a need for control and 3) allow for an identification with a group (Tix, 2017).

The architectural success of the chapel's ability to nurture through religious expression requires deliberate and guided plans by the designer. The knowledgeable and deliberate designer of chapel spaces would understand the needed sensitivity required to help an individual's personal wellbeing and to help them avoid cultural or religious inattentiveness. The deliberateness should not be interpreted as creatively limiting. Jordon Peterson points out in "Maps of Belief", it is important for the designer to recall and exploit how much belief is shared and in common among cultures and religion (Peterson, 1999).

The connection between wellbeing and health is physically and psychologically complicated and is partially religiously based, which brings the discussion full circle with the previously mentioned and historically understood monastic Middle Ages assumptions of wellbeing. The religious and scientific medical knowledge may have a synergistic role with the patient treatments presently offered (James J. Taylor, 2015). Wellbeing being a priority of the

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healthcare provider then would imply that the chapel naturally have a more visible architectural role with the physical treatment areas.

Sacredness in healthcare chapels. The chapel, as an architectural type, in healthcare, and in association with wellbeing, encompasses the ideas related to sacredness. Sacredness or the periodic experience of sacredness, which is often correlated with wellbeing, is elusive and difficult to define but it is an integral part of the chapel experiences or activities involved in meditation or prayer. Religion has many functions, but among its primary is providing methods for the individual to experience different degrees of transcendence by encountering sacredness (Peterson, 1999). Being physical, sacredness is constructed or architectural, being within the potential of design. Sacredness is related to or evokes, depending on environment, the emotion of awe (Swinton, 2010).

There are two aspects or values in awe: vastness and accommodation. Vastness is only partly associated to size but rather refers to something much larger than what is evident. Accommodation refers to enlightenment, adjustment to circumstances or suspension of understanding to what is visible. The need for accommodation is not always successful and thus ontological mystery becomes involved (Kelter A.D., 2003). To a degree, dismissing of notions of awe and wonder, Stephan Asma, the noted sociologist, gives religion a very mixed compliment when writing a piece for the New York Times, “It is not enough to dismiss religion on the grounds of some puritanical moral judgment about the weakness of the devotee. Religion is the most powerful cultural response to the universal emotional life that connects us all” (Asma, 2018, p. 12). The importance of religion then cannot be understated in wellbeing or the architecture of the healthcare chapel.

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Design of healthcare chapels through guidelines. The appointments or functional requirements of chapel design are typically outlined by a religious denomination or faith. For example, a Muslim prayer space would require space for prostrations or a Catholic chapel would require space for communion preparation. Typically, guidelines give quantitative information like number of offices, square footage and other pragmatic requirements. While this official church published information is of use for the designer, it does not address the in-depth universal issues of wellbeing, sacredness, healing, meditation or quality of space for a chapel (Schumacher, 2015). Religion has the primary role in the function of a chapel and there is little compiled information to address less quantifiable issues, such as sacredness and impacting wellbeing, which could be utilized by the healthcare administration, designer or architect to aid in enhancing existing spaces and setting parameters for new chapel construction (Cadge, 2012).

Contemporary chapels being designed today no longer are reliquaries for relics but often do come under the auspices of architectural guidelines. Guidelines, in legal terms, insure a quality and size, that an organizing or authority deems correct (Davis Sterling, 2019). For example, the Catholic Church or the United States military have guidelines for religious buildings which insures a level of uniformity for various anticipated religious functions. Presently there are several design guidelines published by religious denominations and organizations setting minimal architectural standards for chapel design.

The Air Force dictates, through official guidelines the quantity of space but not the quality of space. The Architectural implications of the guidelines are for the programming aspects of classroom space, office space, and of course, chapel space. (Department of the Directorate of Civil Engineering and Office of Command Chaplain, 1999) (Stroik, 2016) (Appendix E).

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The Catholic Church, post Vatican II, the Eastern Orthodox Church and other liturgical denominations set minimal acceptable physical standards for chapels, with the goal being the space would accommodate worship or prayer. While these are minimal requirements, the Catholic and Orthodox Churches encourage a complexity of religious art (Schumacher, 2015). Emphasis is on the requirements of a place where the service, Liturgy or Mass, can be “celebrated”. Though Liturgies or Masses can be performed anywhere, it is preferable in a space that is dignified, respected and approved by the appropriate Bishop or hierarchy of a jurisdiction. The Catholic Church’s architectural guidelines and suggestions can be clearly demonstrated in the Council of Bishops “Built of Living Stones” statement (Appendix F) (American Council of Catholic Bishops, 2000). While the idea of guidelines might seem counter to general ideas of creativity and design, the Catholic Bishop’s statement encourages the involvement of architects, designers and artist in the creation of sacred spaces. These architectural requirements are rich in practical information but limited in recommendations related to the healthcare chapel’s connection to wellbeing. There is a noticeable literature gap when understanding the relationship of wellbeing and the architectural potential of the chapel.

Change in design of healthcare chapels. The new knowledge of wellbeing’s effect on health is inspiring change in new medical facility design, as well as new chapel design, for two main reasons. The first and primary reason for change to the healthcare chapel is that new research is documenting the overriding connection between wellbeing and health (Ellison, 1998). Religion, spirituality and wellbeing are being discovered to have a direct influence on health and healing (United States Center for Disease Control and Prevention, 2019). While this data may be emerging and accepted by the scientific community and as mentioned above, it has long been understood by the world’s religions and monastery precedents.

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A secondary reason for anticipated change in the healthcare chapel is the previously mentioned diversifying American religious population. Anticipating change in chapel design based on population is the coupling of ideas of the understanding religion plays in wellbeing maintenance and diverse needs of the community (Cadge, 2012). As the community changes, so will the need for the chapel's architectural form change. The architectural form that addresses healthy religious inclusive behavior is sacredness.

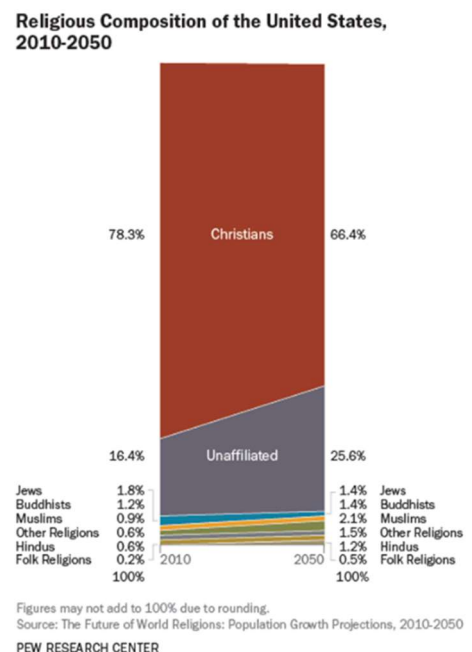
Through positive architectural efforts towards differing religious groups, the chapel could promote and help maintain wellbeing for the largest and diverse populations of patients, medical staff and the community. Considering such a wide spectrum of human religious experience would fall into the category of inclusive design. Inclusive design means including many things that are design specific to a culture (religion) and may be situational, such as healthcare (Nussbaurer, 2018) . When considering the value of cross religious customs in the design of chapel spaces and contrary to first design assumptions, it is important to repeat Jordon Peterson's thought "Most objects of experience have some properties in common, while varying regarding others. Generally, the similarities and the differences are both significant. So, it is with individuals, and with cultures. We seem peculiarly aware of our differences, however, and not of our similarities." (Peterson, 1999, p. 117) Wendy Cadge continues this encouragement by stressing the importance of visually allowing religious differences in the chapel in order to surprise the viewer and invite curiosity (Cadge, 2012). The understanding and expressing religious commonalities and suppressing the religious differences may be more beneficial in promoting wellbeing.

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The religious affiliation of the typical user, patient, staff or public, of the chapel has grown and will continue to be more complicated and diverse. As the graph indicates in figure (Appendix I), this change will continue and increase over the coming decades. The importance of the chapel designer to be educated about various religion's environment requirements is evidenced by the growth of cultural diversity. There is needed cross cultural religious data which could inform the architecture of the chapel and a deeper understanding of end user needs. This research, based on world populations, will examine five major religions, Christianity, Islam, Judaism, Hinduism and Buddhism (Adam Dinham, 2017). Their differing practices of prayer, environmental needs for meditation and wellbeing will be documented in a desire to spur a deeper understanding of healthy spirituality and inclusion in the healthcare chapel. The optimum, satisfying legal requirements of fairness and ethical issues of inclusion, would be to provide some degree of space for a wide range of religions without losing a quality of spirituality (James, 2010).

Figure 2 Graph demonstrating the change in religious affiliation in United States (Pew 2019).

Contemporary healthcare chapel design. Contrary to chapels designed by guidelines and far from being a dying architectural type, contemporary chapels have been the architectural opportunity for some of the most meaningful and iconic buildings in the twentieth century. To illuminate the present chapel data and literature, it would be beneficial to review some of institutional type chapels for precedent of design, impact on differing aspects of wellbeing and artistic intent. The chapel is an ancient architectural type related to both healthcare and



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spirituality. The architectural chapel type is part of western history, as understood and described by Wendy Griswold, and is a piece of our culture that we can examine to help us describe ourselves and how we change (Griswold, 1987). Examining the contemporary chapel should reveal the differing and changing cultural attitudes towards religion, healthcare and wellbeing. As realized by researchers in the journal “Built Environment”, reviewing architectural precedence of any given building type gives a moment of reflection about the culture at a specific time, history of an architectural style and progression and depth of a building type (B. Shahedi, N. Keumala, M.N. Yaacob, 2013)

For example, Frank Lloyd Wright’s chapel for South Florida College (Figure 3) is vertically lofty and centering to the campus, expressing a “modern theology” (Siry, 2004). Siry is referring to the idea of the chapel being styled in a modernist aesthetic, aggressive and visual in its massing and inclusive or non-denominational in its appointments. The plan for the chapel fit into a Wright designed campus. The angular, geometrically organized, modern building has a three-story tower that visually dominates the campus.



Figure 3 Frank Lloyd Wright's Chapel for South Florida College spreads horizontally across the lawn and vertically with the bell tower.

The Thanks-Giving Chapel (See figure 4) in, downtown Dallas Texas, completed in 1977 and designed by Phillip Johnson, is a unique and modern expressive circular concrete structure

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and is considered sacred space by many faiths (Thanks Giving Foundation, 2019). Based on the Great Mosque of Samarra, the chapel spirals upward almost ninety feet. Also, like Wright's Florida chapel, is part of a larger campus, has the unique commission of celebrating religion. The chapel is centering, or constituting a visual urban landmark, in its site placement. The spiral moves vertically, turning inward as it ascends.



Figure 4 Philip Johnson's Thanks Giving Chapel spirals upward.

Another creative design is Eero Saarinen's chapel (See figure 5) for the Massachusetts Institute of Technology campus in Cambridge, Massachusetts (Roth, 2003). Saarinen, like Johnson, found the circular form to be the most expressive of the sacred and inclusive spaces. All three chapels listed above, use natural light (filtered and unfiltered), art and acoustic engineering as driving design components. These contemporary examples demonstrate the chapel's ability to provide a place that expresses ancient ideals of societal health, as well as, addressing modern concepts of personal wellbeing.

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Figure 5 Eero Saarinen's round MIT chapel sits in a shallow pool.

By utilizing architectural elements such as height, line of sight and massing, each architect pushed the chapel into a larger role beyond that of chapel. As in Wright's and Johnson's chapels acting as a centering campus edifice, contemporary examples exist of less publicized exemplary design utilizing or manipulating the chapel to achieve impactful results. The following projects emphasized the belief that healthcare facilities encourage wellbeing when the chapel is an obvious architectural ingredient in the overall design (Meis, 1999) The noted architectural firm, Gresham Smith and Partners, set the chapel at the center of the new design for Middle Tennessee Medical Center (See figure 6). The chapel thus became the figural and literal genesis of the 286-bed facility in Murfreesboro (Peck, 2011). In the private sector, as these projects demonstrate, designers are responding to the desired visibility of religion with the use of chapel spaces.



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Figure 6 Gresham Smith and Partners, Middle Tennessee Hospital has a chapel at its center of the sprawling complex.

However, there are detractors who consider the visibility of the chapel as too exclusive or lacking in inclusive qualities to be meaningful in our twenty first century diverse culture (Harper, 2018). Especially in academic arenas, including medical schools, where historically the value of prayer and meditation have been regarded dismissively (Grubiuk, 2014). Softening the cited dismissive attitudes of chapels has been achieved by, to a degree, conforming to government mandates by often referring to the modern chapel as a “spiritual space” or “multi-faith space” (MFS) in healthcare and educational facilities. This nomenclature is normally issued to avoid state funds sponsoring something overtly religious and to appear secular. While educational and healthcare facilities cite the need for such a space by allowing and encouraging its existence, the space’s visual message result is perceived as confusing and without meaning (Bobrowicz, 2017). The disappointing conclusion of these spaces has been their lack of any architectural spiritual consideration; thus, they do not aid in nor detract from wellbeing.

The architectural investigation of the contemporary chapel design and aid of wellbeing continues and has many fronts. One of the most provocative case studies examining the role of chapels in public life is the Harvard University study of Atlanta’s Hartsfield International Airport chapel (See figure 7). The chapel, serviced by volunteers, was a study of interfaith possibilities of dialogue and understanding.

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Figure 7 Atlanta's Hartsfield Airport Harvard Pluralism Project is trying to encourage dialogue among different religious traditions.

This study is currently researching the possibility of creating dialogue between people of differing faiths in the public domain by displaying a myriad of symbols and icons representable of many faiths. I identify two needs demonstrated in this study: first, to be identified as a chapel because it is non-descript. The lack of any exterior visual vocabulary, beyond that given by the generic quality processed by the airport, diminishes any quality or any level of sacredness that may lay in its interior. The second conclusion is there is a dire need for further chapel architectural design guidelines that support wellbeing. Specifically, at the Atlanta airport location, inclusion is reduced to a commercial and vague observance of religion and sacredness (Harvard University, 2018). The current lack of architectural expression wellbeing and spirituality are not limited to the public domain, as in Atlanta's airport, but also as pertaining to healthcare. Wellbeing and spiritual expressions have long been isolated from medical practice and especially medical education. Evidence of change is that wellbeing or spirituality are now being integrated and encouraged as a part of standard medical education and practice. Medical Schools, such as Harvard and Duke, are integrating spiritual awareness attributes into medical education criteria requirements (Harvard Medical School, 2018; Cadge, 2012; Center for Religion, Spirituality and Health, Duke University, 2019). In addition, emerging new data supports the health-wellbeing connection identified by recent traditional religious organization

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sponsored research that connects spiritual health with physical wellbeing (Ellison, 1998; Orfanos, 2015).

Currently, under new research, the spiritual connection to health and wellbeing is emerging and gaining a medical following. Those medical facilities that promote wellbeing and that are growing have let their chapel facilities expand, benefitting the medical staff and another end user, the patient. The renown Mayo clinic is evidence of the changing face and quantity of healthcare chapels, as evidenced by their four types or styles of chapels (Public Broadcasting Stations, 2018). The Mayo's four chapels, architecturally styled according to the period in which they were constructed and the faith populations they serve, chronologically represent past and future opportunities of healthcare chapels. As the healthcare facility is constantly being reevaluated and studied to provide optimum healthcare according to the increased knowledge of illness and wellbeing, several facilities have been pioneers in this area, such as the Mayo Clinic in providing meaningful comprehensive care for their patients; physically, mentally and spiritually.

The Expanding role of the healthcare chapel. Healthcare chapel literature, as relating to the medical staff and the patient, has recently been highlighted in small areas of study that draw interesting conclusions and emphasizes gaps in the literature. For example, Wendy Cadge has recently published an exhaustive review, from a sociology viewpoint, of the current state of the medical facility's understanding of religion and wellbeing (Cadage, 2012). Cadage gives the chapel functions high importance in the healthcare facility by emphasizing how religion helps give language and meaning to patients and staff coping with the many difficult situations. Citing her own observations of numerous existing medical chapels, Cadage proposes several guidelines for chapels such as the need for silence for meaningful prayer spaces, icon rich shared religious

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spaces to attract diverse people and natural lighting to enhance the complicated emotions of sacredness and awe.

How religion, meditation and prayer effect the individual's wellbeing through the functions of the chapel leads to another area of study in architecture gaining validity is evidence/behavior and neurology research. Dr. Gadge, one of the world's most noted neurologist, delivered the keynote lecture at the American Institute of Architecture 2003 Conference encouraged architects and designers to pursue new data for understanding of the influence of design on behaviors (Gage, 2003). Following this argument, the design of the healthcare chapel, having the distinction of being an area of design efforts, would have an immediate impact on a person's behavior or conversely a person's wellbeing.

Concluding the current literature on wellbeing and chapels and before examining religion, a restatement of key conclusions elaborated on above is offered. Spirituality in medical facility is formally and physically given a place in the chapel. The chapel or prayer room is known by other nomenclatures, which I interchangeably use, such as shrine, sacred or spiritual place. The chapel's identity is in transition due to the growing understanding of wellbeing's positive impact on health, the growing broader cultural diversity of religious needs and the changing architectural role expectations of the chapel itself (Cadge, 2012) There is growing data that suggests that people desire religion to be more visible and accessible in modern life (Baker Christopher, 2017). The designer, with the help of the client, should select knowledgeable pertinent religious architectural appointments to be effective. A brief outline of religions is provided below.

Religious practice in the healthcare chapel. To aid in the chapel's challenge of promoting wellbeing, an understanding of the world's leading religions, with their customs and

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understanding of prayer or meditation would be essential for the future American chapel designer. Chapels or meditation spaces are not limited to Judeo-Christians traditions. There are many Buddhist and Hindu religious buildings that are artistic and architectural wonders, but these are usually more monastic in function, thus used for individual engagement and not corporate worship (UNESCO, 2018).

Buddhists and Hindus, often theologically considered together, have less specific or technical requirements for corporate sacred space. The Buddhist and Hindu sacred space traditions hold that the designated space for a prayer shrine or meditation space is to be set apart and receive a higher level of respect in the home or community (Nhat Hanh, 1998). Buddhist and Hindu prayers or meditations are more individual oriented, and a practitioner is more apt to pray or meditate alone in front of a shrine at an unscheduled time. While not to devalue the shrine, it is generally a non-corporate experience when praying or meditating. The reverence of the location of a shrine, not necessarily a space or room, can be demonstrated by both religions. The shrine is physical like the chapel is a physical space. Thus, Buddhist and Hindu shrines are highly decorated and respectfully require the removal of shoes before entering prayer, meditation or worship (Deziel, 2015).

Conversely, Muslims, like practitioners in the Judeo-Christian tradition, may pray anywhere. The only requirement is the space be clean and dry (Muaaz, 2016). Unlike Hindus or Buddhists, Muslim tradition promotes prayer as best practiced by praying with others. Uniquely, the spiritual attribute of prayer is more valued or discerned more beneficial for the individual to pray congregationally. Muslims have prescribed, liturgical customs of praying that involve kneeling prostrations which, of course, require adequate space. The attention given the

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decorative scheme of a mosque is to celebrate the congregational prayer and the writings in the Quran or Holy Book (Williams, 1989).

The Muslim individual's liturgical requirement to pray and venerate towards Mecca or the Qibla which is in present day Saudi Arabia has a direct impact on the design of the healthcare chapel. The Qibla is a single box room built by the Prophet Abraham and his son Ishmael and is the holiest and most sacred site in Islam. The most important time of the daily five prayers are the midday prayers on Fridays (Muaaz, 2016). The understanding of the basic theme of prayer is to obtain inner peace by cooperating with the will of God (Ahmad, 1996).



Figure 8 Healthcare Chapel sign giving direction of Qibla (Personal Photograph).

The Qibla is a representation of the sacred or the divine involvement in the physical world. Chapels or prayer spaces directed towards the Qibla would then be physically or imbued with a cultural recognized sacredness. Sacredness is derived from associations descending from direct relationship with the Prophet Muhammad and descending in degrees to saints. Muslims have a similar idea of archetypal sacred space as that of Jewish and Christian traditions. All sacred spaces are representative of a more “real” or holier space. (Burge, 2016) All the faiths mentioned in this paper and having the largest populations, share varying degrees of sacredness

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associated to chapels because of the function of prayer or meditation thus having a direct impact on an individual's wellbeing.

Also, with a growing complexity of religious affiliations, the medical staff must be considered and included when analyzing the end users of the chapel. The medical staff's wellbeing is also part of the overall treatment received at a medical facility and forms an often-profound communication opportunity to facilitate healing (Mimi McEvoy, 2014). The medical staff's wellbeing is communicated by the quality and sense of mission of patient care (Baldacchino, 2017). The medical staff, included by the chaplain, has grown to encompass a skilled team. In many medical facilities the chaplain is considered a vital part of the patient's diagnosis and whole person treatment (James J. Taylor, 2015). The Chapel is in a unique place to offer, at the very least, space, and at the most, leadership in aiding the medical staff's enhancement and growth of wellbeing.

Concluding the literature review, the healthcare chapel occupies a space that reinforces a patient's religious culture, positively encourage the individual's universal wellbeing, enhances spiritual dialogue within the healthcare facility between the medical staff, patient and community groups. At its foundation, the chapel, true to its original function, offers the healing suggestion of the sacred via use of contemporary architectural forms. By reviewing existing literature that demonstrates the impact of environment on wellbeing, current contemporary architectural precedence and differing religious requirements the designer is made aware of the complexities of the healthcare chapel.

Purpose Statement

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The purpose of this qualitative case study is to understand the importance the healthcare chapel plays in the wellbeing of all the patients, staff and community. The data gathered, through interviews, document reviews and site observations discovered design elements that were desired for a more nurturing spiritual experience for the patient and the medical staff. The interviewed chaplains and designers were selected because they lie at the center of chapel renovations and new design as leaders. Discovered from this data were commonalities of themes and codes. These codes will be formed into findings that will aid designers and administrators of healthcare chapels in making the best decisions impacting wellbeing. The healthcare chapel is being pushed into the future by the understanding that spirituality plays in an individual's wellbeing and the effect wellbeing has on an individual's health. Architecture and design, based on evidence, has a primary role in enhancing the chapels role in wellbeing by appropriate and educated design decisions.

Research Goals

Encountering sacred space, at the very least, allows for a momentary release of stress and frustrations, and at the most, provides a path to healing. With this understanding, useful research will be produced for aiding the medical facility staff and the designer in creating a meaningful chapel experience defined by the impact of encountering sacred space. Using an inclusive approach, the goal of this research will instigate meaningful cross-cultural communication. Reflecting current trends in America, the importance and complexity of the chapel will grow as the religious diversity of the patient and staff population increases (Pew Research Center, 2015). To address these changes, the design of the chapel will need to creatively and knowledgeably address the issues of inclusion. The study will give credence to viable architectural chapel

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solutions that seek religious inclusion and aid in personal spiritual growth by setting forth guidelines for design. The research will give the designer physical requirements but also an understanding of the liturgical significance of the varying religious requirements. By including of liturgical architectural elements, possibly a spiritual dialogue between chapel users of differing religions and faith traditions could be given a foundation.

Research Questions

The primary research question of how the chapel provides wellbeing for the patient, staff and public pertains to architectural design but other research questions required more depth and give validity to the original research question. These questions are listed below.

- Who or what population is served by the chapel?
- What makes a space sacred and how does architecture and the designer inform it?
- What is the chapel used for?
- What are the architectural commonalities of religion that inspire positive wellbeing?
- What role does the chapel play in inclusiveness?

CHAPTER 2

Qualitative Research Design

To achieve a rich descriptive level of experiences, successful and informative interviews are only possible by bracketing one's own beliefs. Bracketing or bracketing reflection, as coined by Van Maanen, will facilitate unclouded and useful data which can be formed into guidelines (Van Maanen, 2011). In this research, I will attempt to suspend my own Christian beliefs and architectural prejudices, document differing understandings of sacredness, the form sacredness takes and its impact on wellbeing.

Considering religions in general and within the healthcare facility, presents too many variables that only a qualitative research can encompass. Qualitative research will allow a personal or objective exploration into religious beliefs different than Christian while measuring my own experience or subjective knowledge against what the research is revealing. David Silverman refers to this thought process as “zigzagging” (Silverman, 2017, p. 125). Expectantly this exploration will cause my own self-doubt of held personal beliefs which cause an inward reflective spiraling thought process by which commonalities and differences can be documented and discovered. Qualitative methods will allow the comparing of differing religious ideas to my own to discover possible architectural commonalities that will determine more meaningful guidelines and suggestions. The guidelines, findings and suggestions will enhance the sense of the chapel's sacredness which will positively affect the individual's wellbeing. Community dialogue will be an outcome of personal wellbeing, creating a circle of enhancement anchored in the chapel's existence.

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Data Collection

Observations

Joseph Maxwell explains observation as giving a description about a phenomenon (Maxwell, 2013). Six chapels and prayer spaces were observed at different times and days for architectural appointments, type and frequency of visitation and general conditions. See Appendix D for a set protocol for each observation location.

The first observations occurred at the 600-bed urban Hospital B in Jackson, Mississippi. Hospital B is the largest in the state with over 600 beds. Following the trend of healthcare, the hospital has expanded over the past one hundred years to house a myriad of health service specialties and focuses. Hospital B has three distinct chapel space types, 1) the chapel, 2) the cross shrine where prayer requests are deposited for later placement in the chapel and 3) located throughout the hospital, prayer spaces. The chapel is part of a 1970's architectural scheme, where the shrine and the prayer spaces have been added or incorporated into the hospital since 2005.

Hospital D's Chapel and two prayer spaces are the second healthcare facility observed. Besides the chapel, the prayer spaces observed are referenced as "the main prayer room" and a randomly selected secondary" prayer space" out of six prayer spaces located throughout the campus. Hospital D is a 571-bed acute care facility in Jackson, Mississippi and traces its history to 1946, when the Dominican Sisters of Springfield, Illinois, purchased the Jackson Infirmary in the center of the city. The sisters moved the hospital in the early 1960s to its current location two miles north of the downtown area. Hospital D strives to not only provide care for the sick but

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also to offer education and wellness services to the community to improve the health status of all people.

Hospital K was the third Chapel space observed. The smaller 100 bed hospital serves a large rural population. The hospital was built in the 1960s which included a chapel space. The chapel was renovated in 2010 (see Appendix L).

Document Reviews

Existing documents were reviewed for pertinent information in chapel design. Documents used had the largest impact to this architecturally focused research. These documents, plans, marketing materials and architectural renderings act as informing the observations and interviews (John W. Creswell, 2018).

The first document from Hospital B is a plan that illustrates the new chapel renovation that is planned for the near future (see Figure 9; Appendix M). The new design for Hospital B's Chapel will be located next to the present-day chapel offices. The ICU waiting will also be renovated and enlarged and become part of the entire first floor functions. As the attached plan demonstrates the new chapel will increase the chapel space by an estimated 40%.

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Figure 9 Hospital B proposed chapel addition within the critical care renovation. The blue arrow locates the direction of the main corridor, ending in the landmark size window.

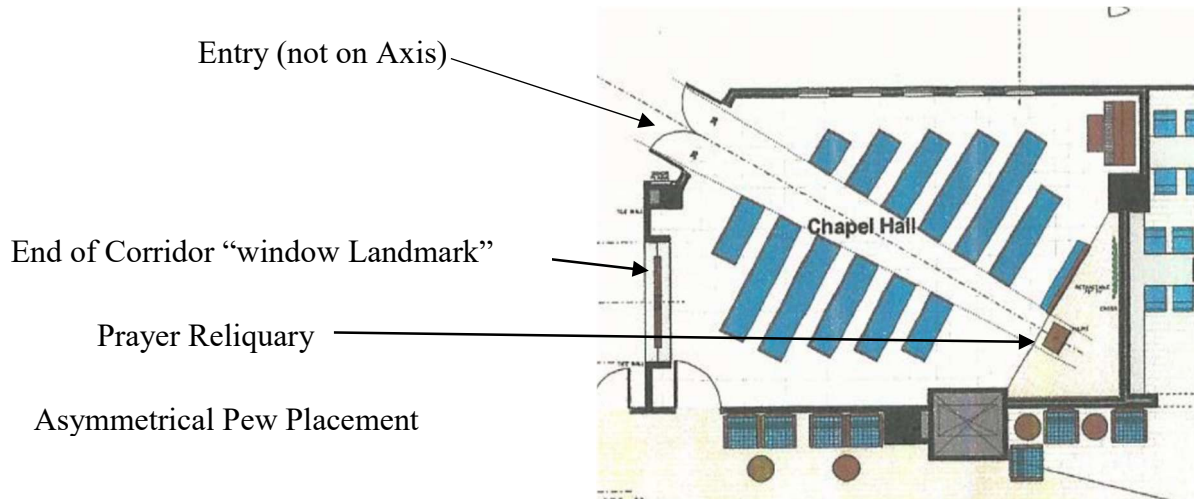


Figure 10 Detail plan of Hospital B new chapel with features highlighted.

Some interesting features that seem conflicted are noticed upon a close inspection. Since this chapel design proposal has been very scrutinized by Chaplains and architects, I am assuming that any design gesture was or is intentional. As seen in Figure 10, first the main doors are not on axis with the main circulation path. There is a type of “window” shown as the termination of the important corridor from the main lobby. The style and subject matter of the window has yet to be determined. The skewed entrance is to possibly heighten the sense of security and privacy the present chapel has, I assume it is the design intention. Secondly, the asymmetrical entry may

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provide privacy, but the axial pattern set up is unbalanced, I find this gesture undeveloped because exiting the chapel centers on corners of adjacent spaces. The pews aid in the grounding of the axis and the centering of the room. A well-balanced space is common throughout all faiths as a stabilizing element. The balance is countered by the pews being distractingly unsymmetrical, the viewer is wondering if the focus is the alter table or the pews. Again, the balance is slighted by the forced perspective set up by the pews but only works in a singular direction.

A positive design feature is the secondary door directly into the ICU waiting. This will serve as a private entrance for users who seek discretion. There is thought of placing some type of windows along the upper wall of the chapel. This has proved distracting in other chapels also designed along a major circulation path.

The second document reviewed is the architect's intent statement in the design of the chapel at Hospital D (see Appendix N). This document, figures 11,12, 13,14 and 15, is used for marketing purposes to raise funds for the chapel. The author, unknown, with a clear understanding of the architect's intent, verbally describes several chapel details in theological terms. It is clever in its quaternal design and unfolds, literally and figural, to describe the symbolism involved in the design. The weighted architectural theoretical language may be too lofty for most readers but does show insight in the architect's decision process and the chapel's architectural precedence.

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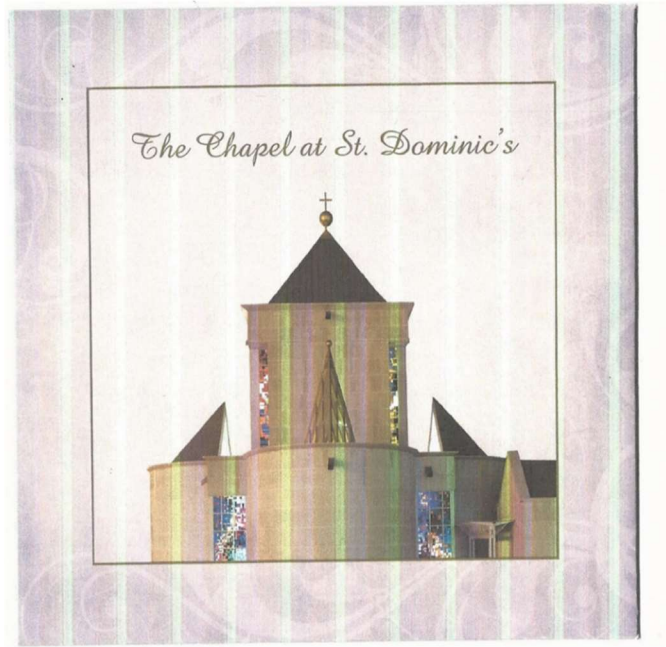


Figure 11 Front of Document Hospital D illustrated by architectural rendering east façade.

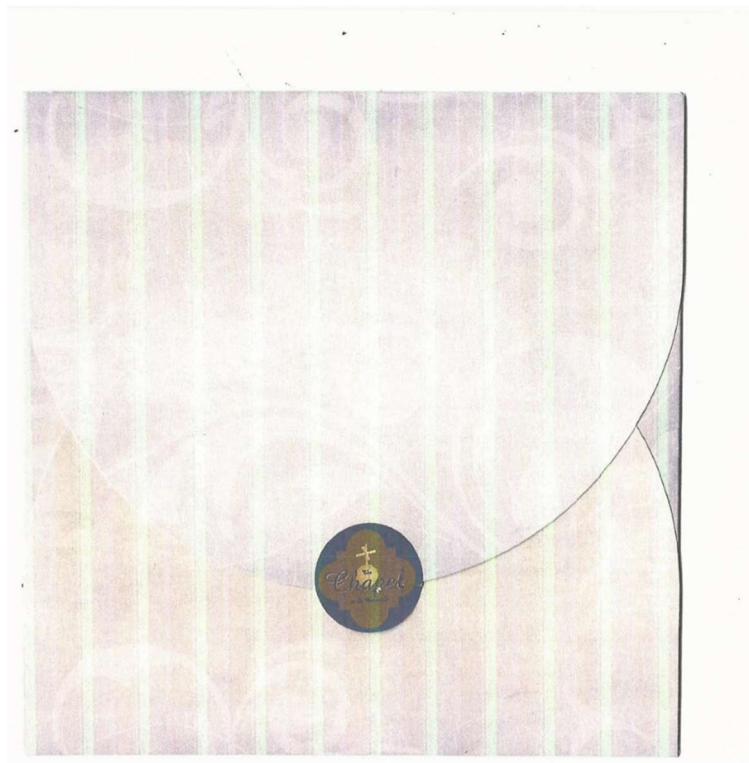


Figure 12 Rear of Document (folded) that demonstrates the marketing design collapsed.

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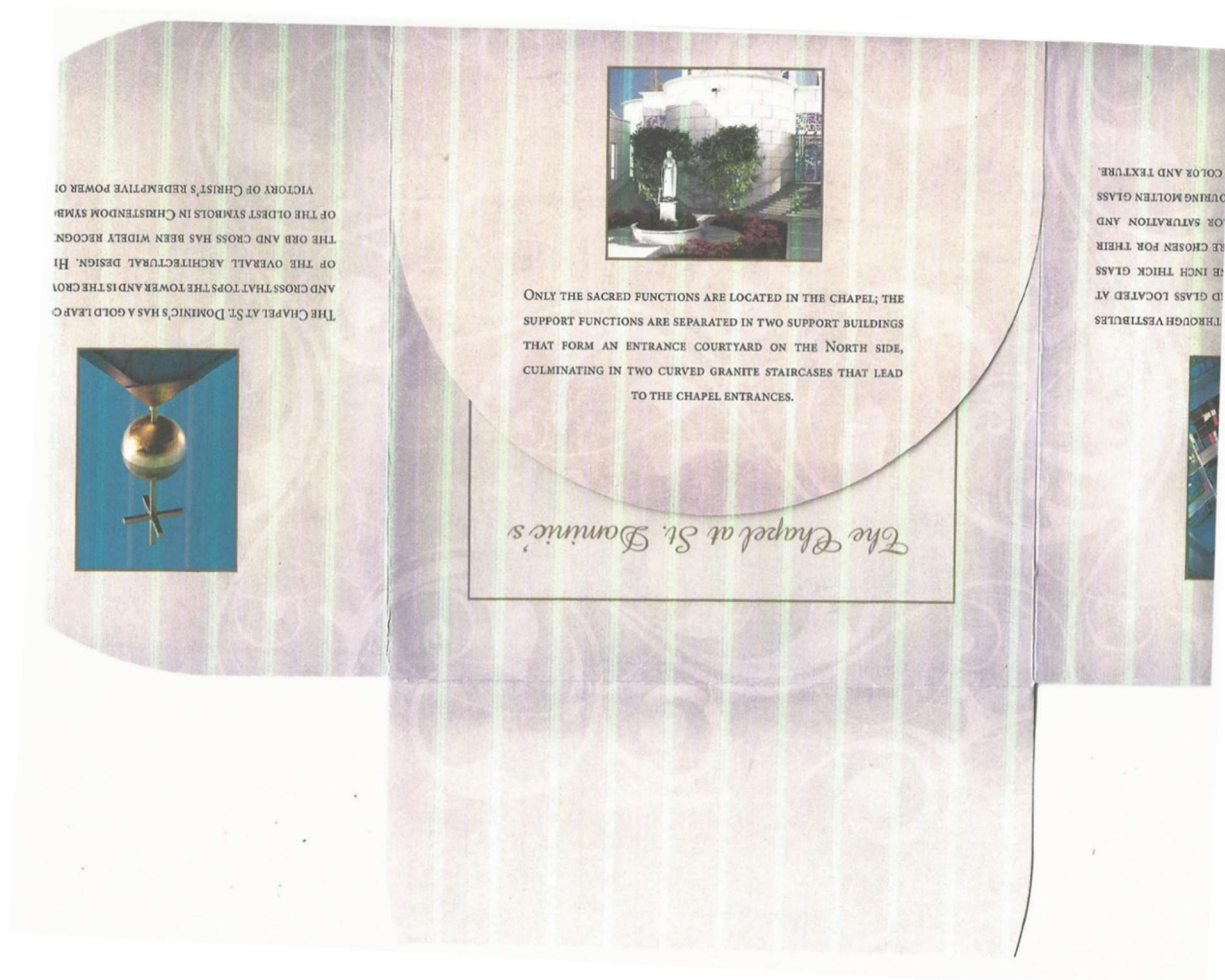


Figure 13 The document in mid unfolding demonstrates how each architectural element (windows, gold leafing, entry, etc.) of the chapel is given explanation.

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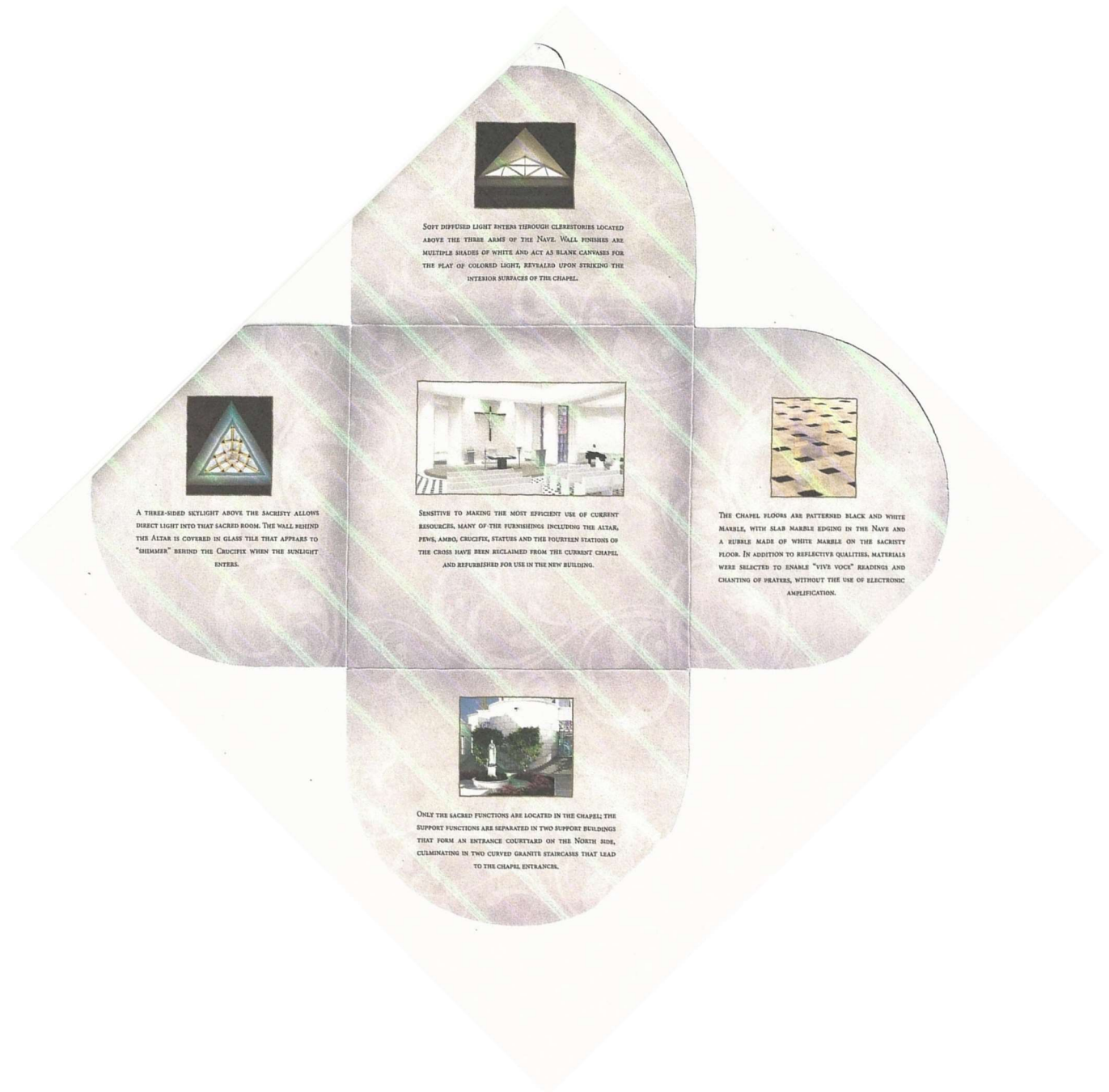


Figure 14 Architectural details explained, and the document fully unfolded illustrates how the design mimics the chapel plan.

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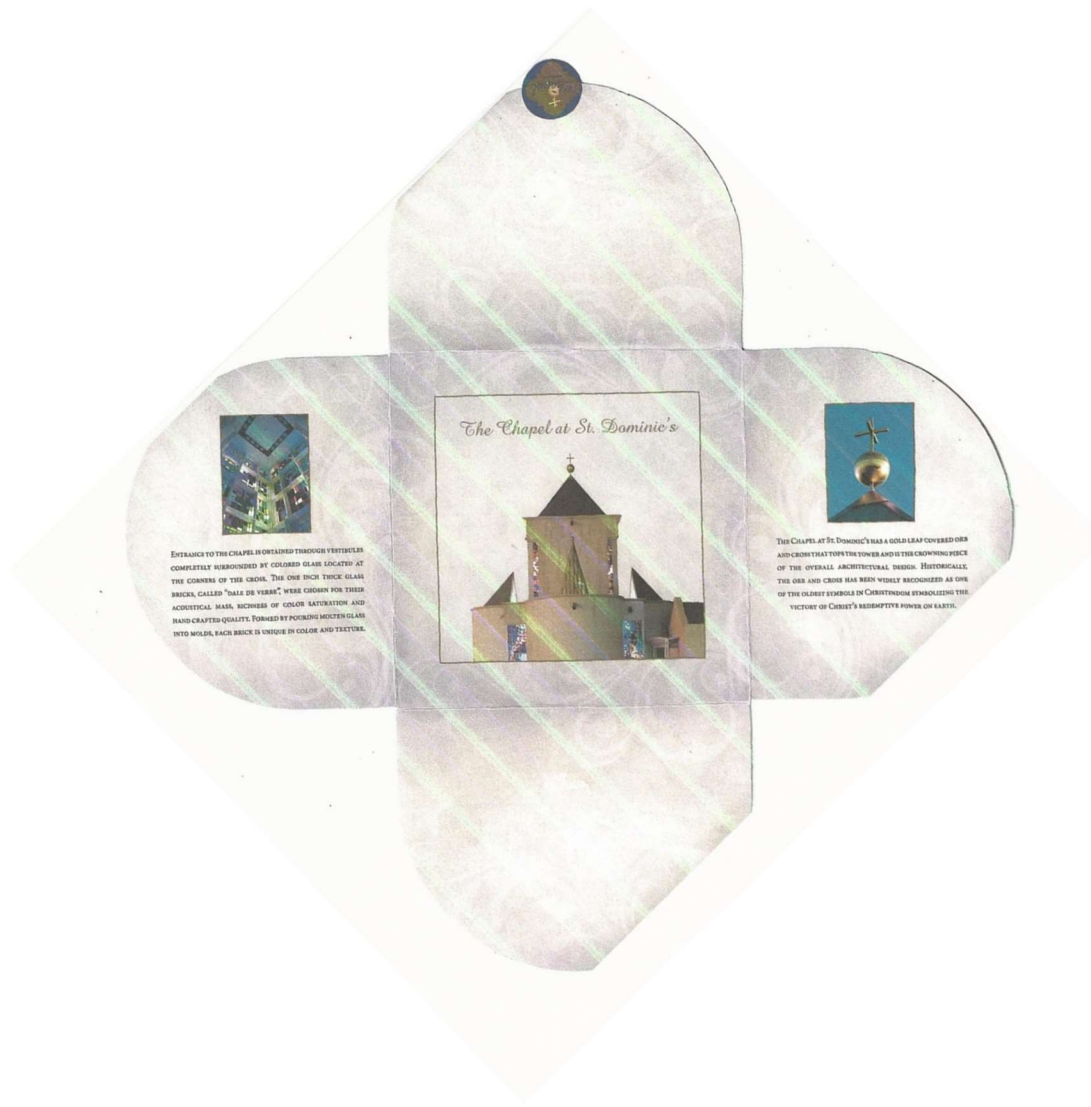


Figure 15 Document showing quadrifid design and details of the chapel.

The third document is also a planned future chapel for a school chapel in Madison, Mississippi (see Appendix O). The three architectural renderings are an exterior perspective (figure 16), an interior perspective (figure 18) and a plan (figure 17). The three drawings give an overall feel and design intent for the new chapel. The seating is movable but is drawn in a curve to allow for more seating. The exterior is comprised of a red masonry and standing seam copper.

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The chapel's attached tower, as intended by the architect, Jack Allin, will be a dominant feature on the overall campus.



Figure 16 Chapel with the strong vertical landmark for the campus and students.



Figure 17 Plan of chapel showing path "through" the architecture and the water component at entry.

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The chapel's interior, with its looming overhead ceiling, gives an image of a ship's hull which has historical Christian roots (figure 18). Elements of interest are the interplay of water and the inclusion of a small interfaith chapel. The architect, as the interior perspective demonstrates, was concerned with manipulating the natural light, finish and color. The plan demonstrates the layering of walls to enhance the sense of security. The sense of security is reinforced with the walls lacking low fenestration.

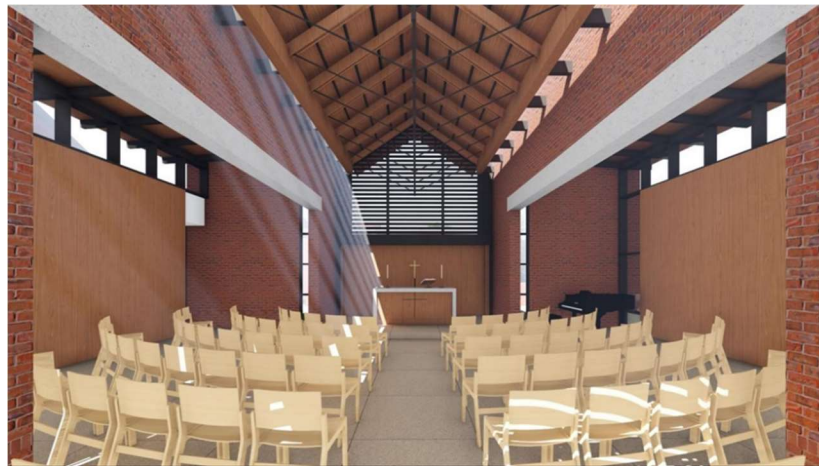


Figure 18 Chapel interior perspective showing ship ceiling and light emanating from upper windows.

Interviews

As outlined by Holstein and Gubrium (2008) in the *Handbook of Constructivist Research*, collecting data using the interviews of participants who are directly involved with the making, maintaining or use of the chapel gives me means of a direct access to an experience or feeling of wellbeing afforded by the chapel. The model of Constructionism employed to describe how the chapel affects wellbeing. The factual parts of the chapel have become evident through interviews and the interviewee allowed for the understanding how the social realities of wellbeing are constructed and sustained.

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The narrative analysis methodology treated the accounts given in interviews as stories in the context of the healthcare chapel. In 2010, Gubruim further noted that these stories have the following features:

- Stories are constructed in concrete circumstances and places.
- Stories are told with an audience in view
- Stories are eventful-they are stories of action with consequences
- Stories are always more than accounts: they are accounts that have been conveyed and stand to be reconveyed

My interview questions were derived from the construction framework using an appropriate vocabulary discovered in the literature review. Interviews, semi-structured, were conducted of three chaplains, one architect and one interior designers, after approval from Ball State University's Institutional Review Board. Interviews were very important in understanding the religious leaders, the designer of religious space and how theology might support wellbeing through design. Interviews went beyond observation or document reviews, revealing personal and often hidden information (Maxwell, 2013). The purpose of the interviews was to understand the use of the medical facility chapel for attaining or enhancing wellbeing, how they believe the connection operates between wellbeing and the chapel and finally how the use of the chapel spaces could be enhanced by improving architectural design. The interview had a framework outlined in Appendix C. Interviews had been designed to last approximately thirty minutes but often ran longer.

Data Recording

All interviews were recorded using a personal telephone application, notes taken during interviews focus on nonverbal communications, such as facial gestures. The recorded interviews are transcribed and stored in a code locked computer file located within my house. All observations were

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photographed, measured if applicable to architectural issues and described as to type under the enclosed protocol. A personal journal was kept describing any occurrence that may not fall within a data heading or that may be of a personal observation nature. Existing documents, such as architectural drawings or official publications, were copied if allowed, analyzed for appropriate coding and stored locked in a file cabinet within my home.

Validity

Validity was established by my incorporating corroborating evidence through triangulation of multiple data sources: using different sources, methods and investigators to “back up” the data and information as reliable. For data triangulation, the selection of five different types of chapels for observation at three completely different types of healthcare facilities, allowed for differences and similarities to occur naturally. I discovered and documented negative cases, analysis or disconfirming evidence. I confer researcher bias or engaging reflexivity, so that I may demonstrate how certain ideas are connected by illustrating a personal history or bias, such as a personal concern for architectural design awareness.

Assumptions were challenged, utilizing a comparative method, by juxtaposition of chapel design in two different environments (healthcare and education) and two different designers (interior and architectural) (Becker, 2010). Assumptions about chapel design made by me during observations, which were compared to other chapel types, such as educational campus chapels for accuracy. Themes discovered and extrapolated during interviews and document reviews were regularly compared to existing literature and observations. The reoccurring chapel design themes for both healthcare and education were analyzed, understanding that this knowledge was based on provisional knowledge of place and time, for similarities and

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differences (Popper, 1959). The same comparative method was used for design professional healthcare chapel goals and a chaplain's goals and aspirations.

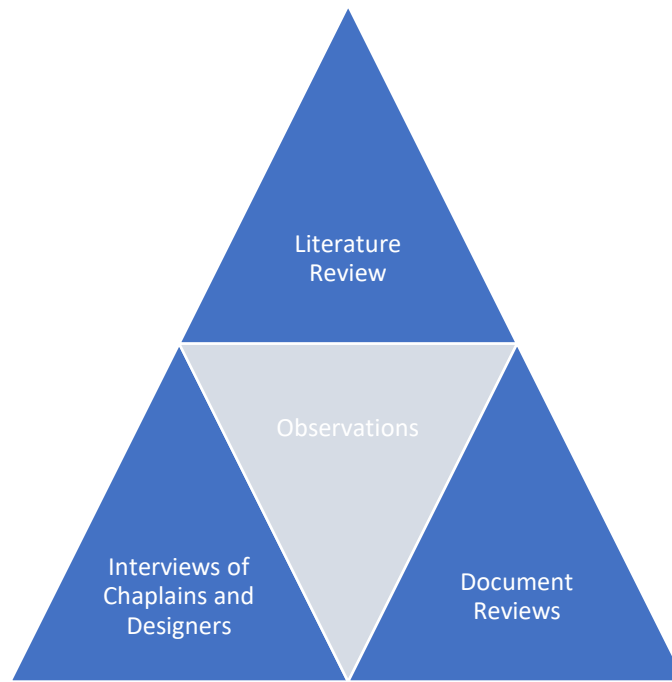


Figure 19 Diagram of triangulation of data that forms results

I performed member checking or participant feedback, once a rough draft was established taking data back to participants for validity and accuracy. By generating a deep and rich narrative, I accomplished, with the adequate amount of data, a meaningful description and details understood or analyzed for connections (Creswell, 2018). Peer review or debriefing of the research process through a Ball State University appointed committee validation process was performed. I anticipated having persistent observation in the field which helped insure the correct data is collected. Finally, I enabled external audits: By keeping good and accurate records of data collection, another research could review and validate conclusions (Maxwell, 2013).

Chapter 3

Results

Observations were completed after the interviews, to “check” information revealed by the interviewee. The interviews of the three chaplain participants took place within the chapel or near the chapel, which acted as a visual aid in some circumstances. The design professionals were interviewed in their offices without visual aids. This scenario acted as, as described by Clive Seale, an overlay of “naturalism” to the interviews (Seale, personal correspondence). The codes from interviews surprisingly broke down by type of person interviewed and are illustrated below in are proportionally weighted based on topic.

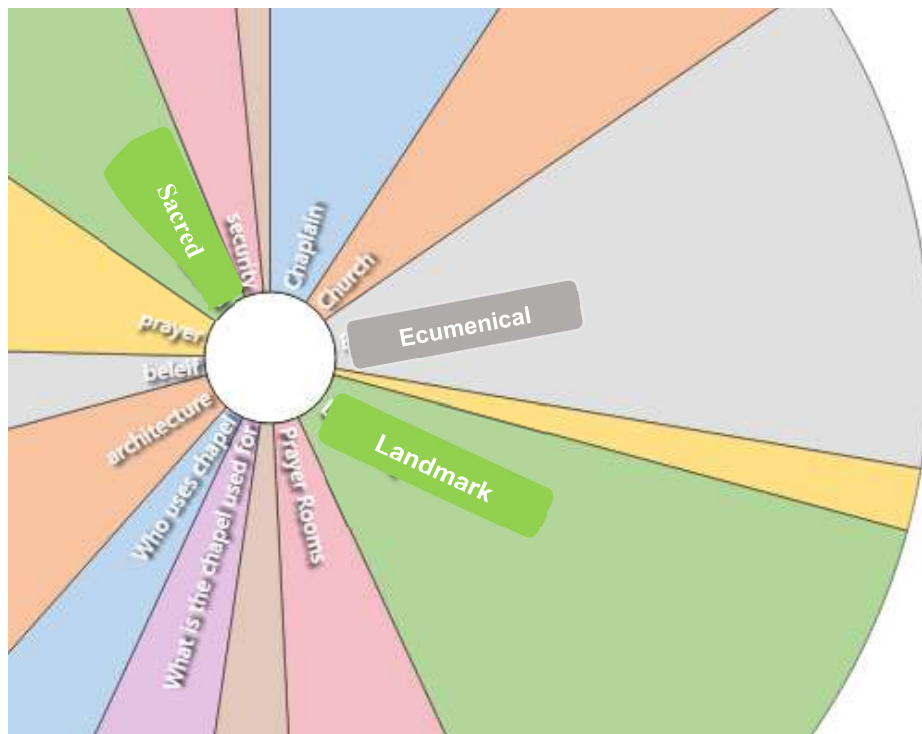


Figure 20 Codes derived from interviews with size representing frequency of use by interviewees.

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The type of person, either chaplain or designer, dictated to some degree the areas of concern. The architect tended to lean toward more architectural ideals, where the chaplain was more concerned with religious practice. The graph below demonstrates, the architect was more concerned with ideas that were somewhat solvable by design intervention where the chaplain was more concerned with patient and staff spiritual issues. The architect's concerns, as coded, are illustrated on the left and a chaplain's concerns are illustrated on the right. The center area demonstrates the shared areas of concern.

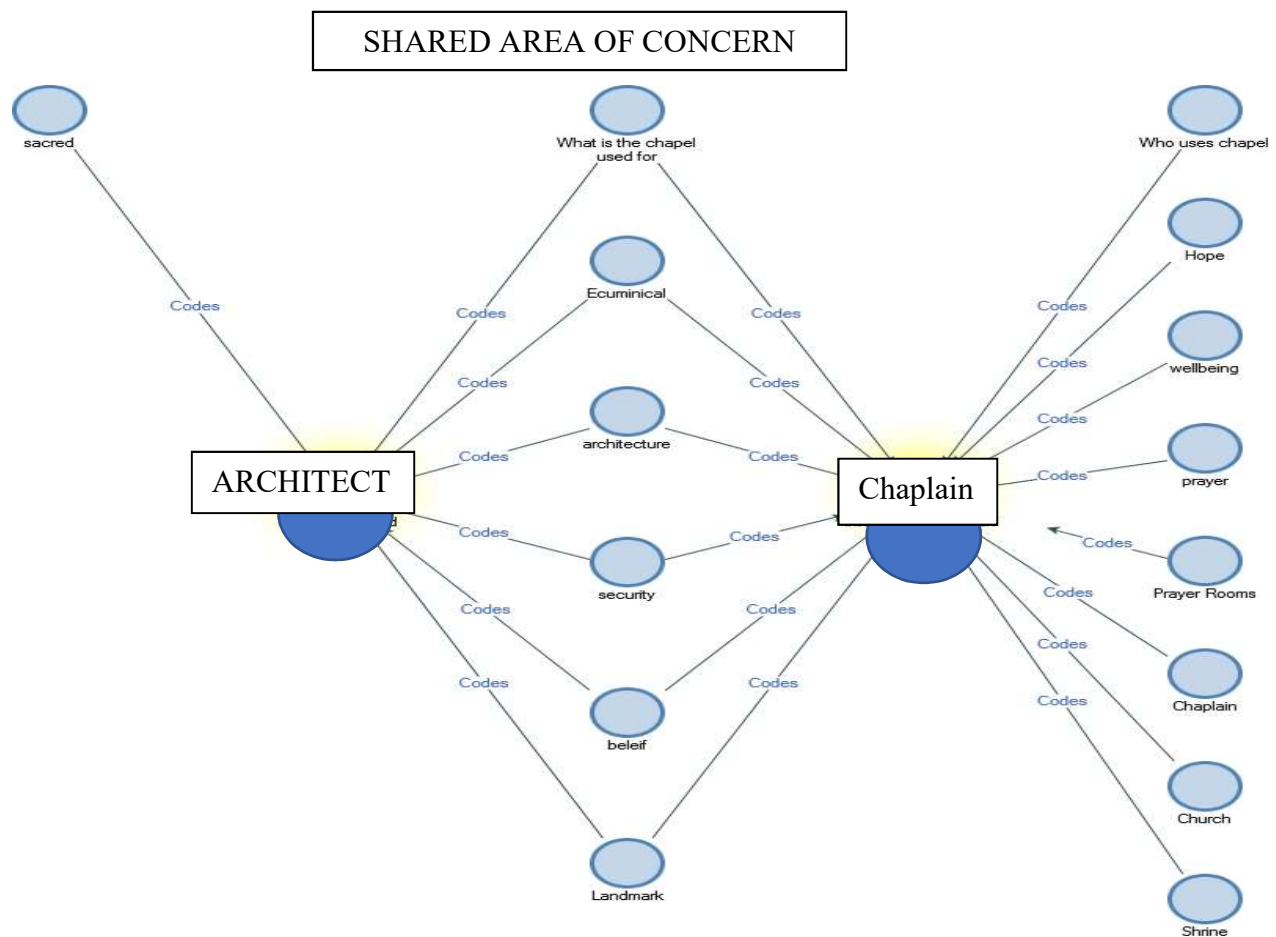


Figure 21 Code graph that demonstrates the example of shared codes between architect and chaplain.

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When considering the code “Landmark” for example, the concern for design issues is clearly demonstrated by the number of times mentioned by the architect (see figure 22). On the other hand, the interior designer used almost no architectural coding words. The interior designer was concerned with finish and textural issues and their ability to emote an emotion. The chaplain’s use of the idea of a “landmark” was based on emotional attributes such as confidence and security.

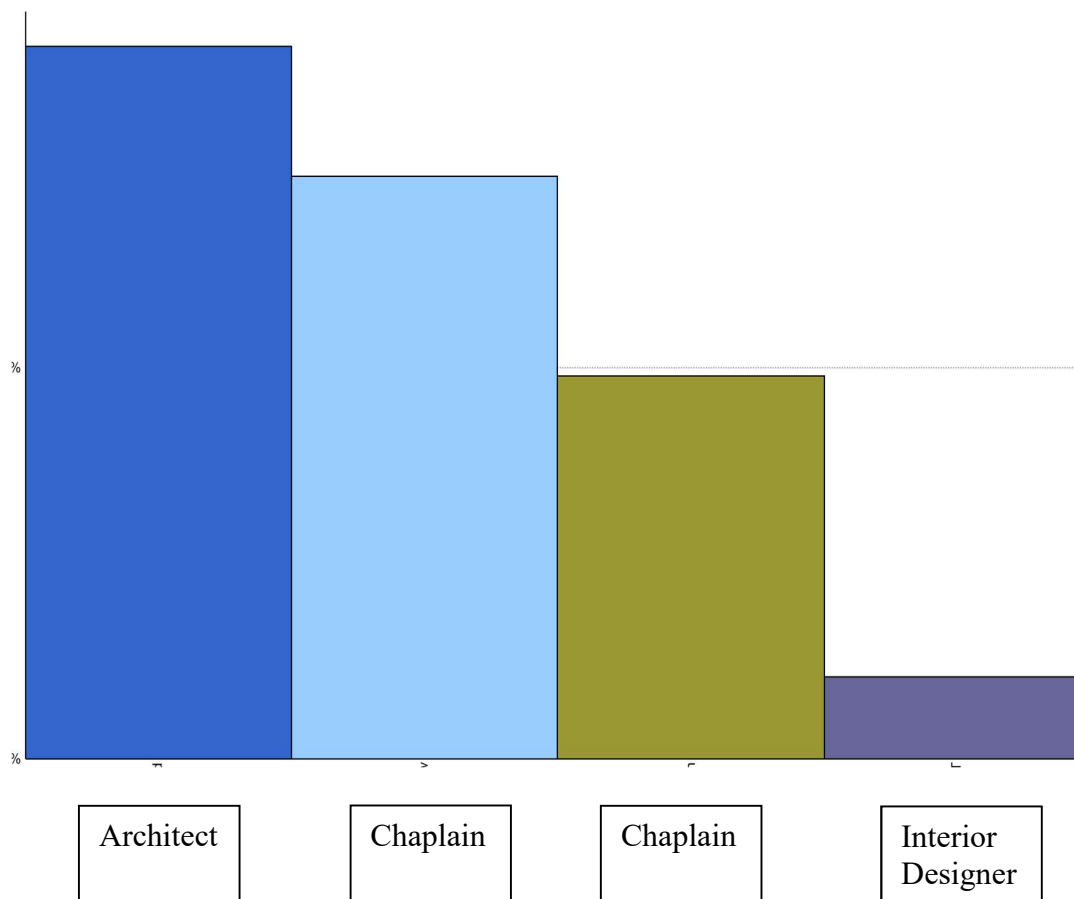


Figure 22

Graph using "landmark" code example for comparison among interviewees. Landmark, an architectural design concern, is mentioned less by others involved in the chapel.

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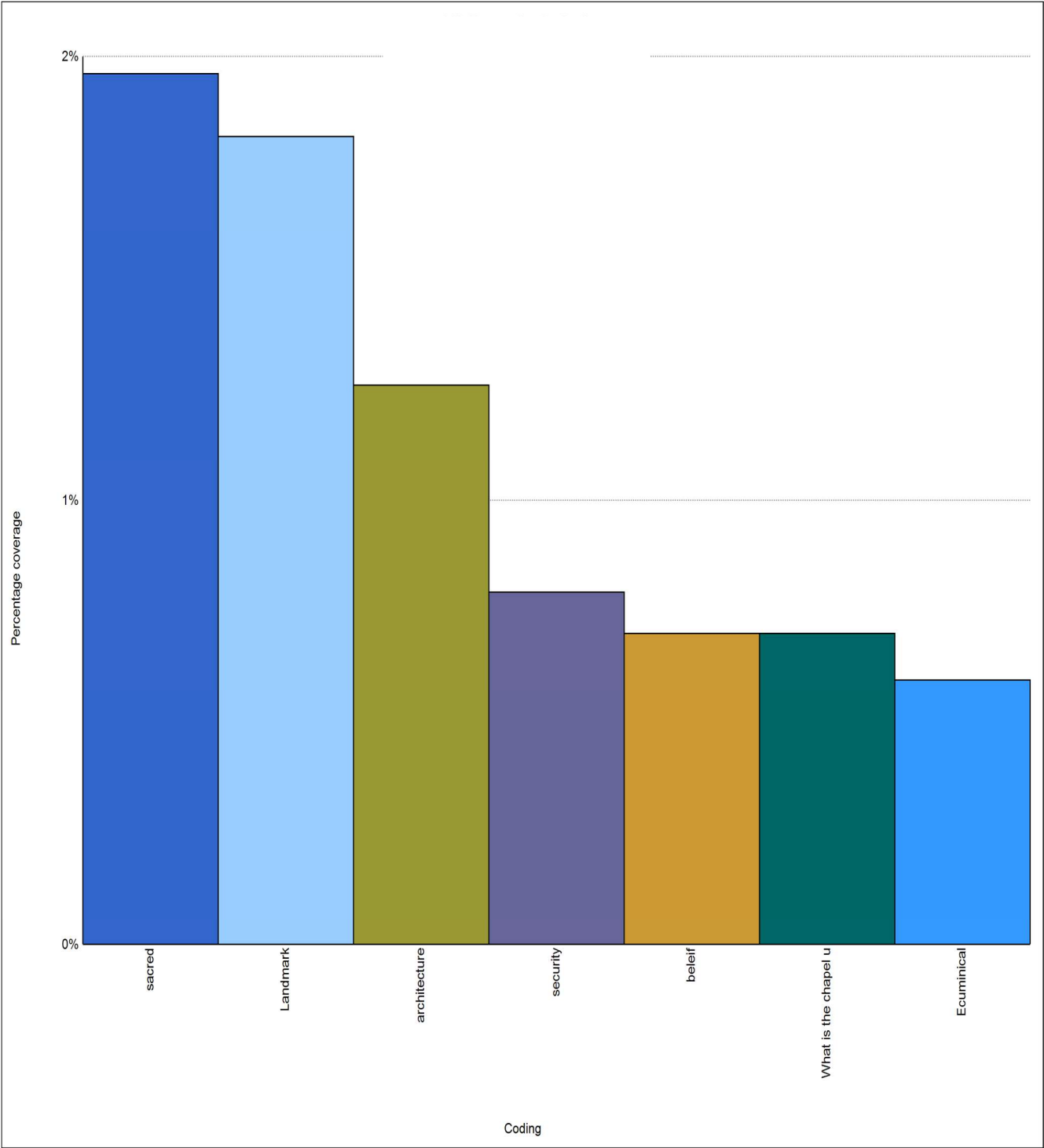


Figure 23 Graph showing the architects concern for design solvable issues. Sacred is understood to be solvable by the inclusion of particular architectural elements.

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The architects interview is further analyzed using codes and their frequency with the graph above (figure 23). The overall concern of the design professional being design solvable items as opposed to more abstract issues such as belief. Understanding and reflecting upon these natural prejudices, notes and recordings were reviewed to insure some degree of quality control. Utilizing a constructivist approach along with my personal records (see figure) and the reviewing interview transcripts, a reasonable picture of reality for the healthcare chapel was achieved.

Interviews, observations and the review of existing documents were reviewed for recurring themes. Colaizzi's phenomenological method of rereading transcripts, reviewing observations and reviewing documents for recurring themes was employed (Creswell, 2018). The method allowed for reflection and differentiating of different types of data by repeatable review, comparison and reaction. Noting similarities and contrasts in the data was noted in an ongoing written record. Data then was coded based on similar information and conceptual similarities, then compared and given hierarchy. Data analysis resulted in the following open codes: Security, Prayer/wailing wall, fear, physical attributes of the chapel, wellbeing, chapel as church, wayfinding, chaplain, ecumenical, unease with religion, sympathy, belief, formal traditional functions, administration, counseling, prayer and prayer rooms, beauty and sacredness. The codes are demonstrated and weighted by the frequency of use in the word graph

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(see Figure 24).



Figure 24 Reoccurring codes mapped and weighted in word cloud above.

Among these codes conclusions were drawn and then given differing levels of importance. There was some bias in the ranking because the purpose of this research is to attribute architectural form to healthcare or spiritual ideas. (Silverman, 2017). These hierarchical attributes based on commonly held spatial or decorative beliefs formed findings or extrapolations, the product of this research.

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Chapter 4

Data Analysis

Based on what Seal (1999) describes as methodological awareness or comprehensive data treatment, the discovered reoccurring codes from the existing literature, observations, interviews and document reviews were combined with my recorded reflections and comparisons which lead to the following findings or extrapolations (Seal, 1999). The extrapolations or results were selected because of their reoccurrence, positive and negative impact on wellbeing and the architectural use in the design of the chapel. Along with these findings and instead of offering the researcher a layering process that reveals more answers as data is accumulated, the chapel space offers striking paradoxes on several different levels. These seemingly opposite occurrences will be noted throughout the findings. For clarification and ease of following of the findings, the chapel, historically and paradoxically referred to as a centralized and singular religious space, is now a complex mix of space types, functions and personnel. These spaces, based on known nomenclature and architectural elements utilized in the space, are referred to as chapel, prayer space and shrine. A description of each space type at each observed site is given below, then a list of applicable design guidelines for healthcare chapels.

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Figure 25 Entrance into Hospital B Chapel showing minimal signage and no architectural manipulation.

At Hospital B, the formal chapel is a small space located well within the first floor, past the lobby, past the large cafeteria, past the admission/reception area and past a public bank of bathrooms. The chapel is very discreet in its presence, lacking a pronounced entry, accentuated door or obvious signage (see figure 25). It is located between the pronounced administration offices area and the chaplain offices (see Appendix J). Upon entering the chapel, one is struck by the lack of lighting, mechanical or natural. Where the hallway is brightly lit by the democratic and ubiquitous florescent box light, the chapel is thick with shadow. A traditional cross is dramatically illuminated by a lighting spot opposite the entry, terminating a small axis. After one's eyes adjust to the lack of light, the general visual impression of the chapel is one of Christian and traditional, which seems expected and not forced for this facility.

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The darkness of the chapel gives an immediate sense of dignity and gravity which is conducive to quiet meditations and prayer (see figure 26). When reviewing the plans (see Appendix M) for the new chapel, the lack of light is used again as a design tool encouraging prayer. The furnishings are traditional wood pews, organ, small podium and the lit cross, which rest on an alter type wooden table. Beside the cross, also elevated on a square podium, a glass lidded container full of colorful paper prayer requests. I am immediately reminded of several religious similarities furnishings types, such as to reliquaries which hold relics, large tabernacles that hold Christian communion or the Hebrew ark, which holds the Torah in a synagogue. The chapel prayer requests are gathered from a shrine like cross, which will be discussed next, and is in the main entry lobby. The hundreds of reliquary prayer requests that filled the two-gallon container were written on “post-it” notes of differing pastel colors (see figure 27). The post it notes are collected daily from the lobby shrine and kept in the chapel, the mass of notes visually animates the large glass container much like a stained-glass window. Simultaneously, invisible prayers of request are made visible, manifested, for the viewer to reflect upon and empathize with, much like a traditional religious icon of several faiths. I was awed by the number of requests and commonality of the human condition of illness the post it notes represented.

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Figure 26 Chapel B photograph showing the very low light quality and prayer reliquary to the left of cross.



Figure 27 Prayer reliquary shown full of the multicolored prayer request.

Additional to the darkness, within the chapel, there is the moderately auditable music played over a television which is mounted on the rear wall of the chapel. The genre of music is contemporary in tone and not noticeably religious, but rather like “natural” music one might hear

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in a hotel lobby. The musical sounds often mimicked nature sounds like murmuring water, leaves rustling due to a soft breeze or tonal sounds. As compared to silence, I felt the sounds contrived or forced trying to induce relaxation and tranquility (see figure 28). Assuming the reasoning behind the induction of musical sound, voices of people passing in the corridor is muffled, but not eliminated, by the artificial sound.

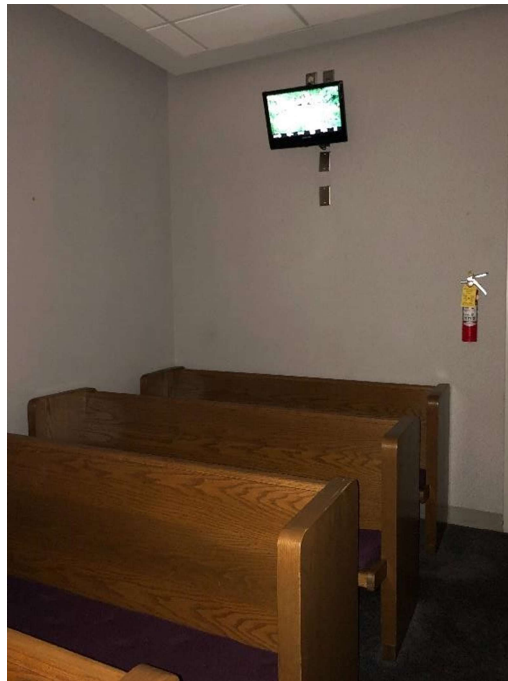


Figure 28 At the rear of chapel B, this photograph shows sound system (mounted screen) that plays natural sounding music.

After several observations at differing times of the day, the attendance in the chapel was sporadic. The chapel is open to the public twenty-four hours a day. Of those observed attending, due to the darkness, it was not always possible to discern if the person was a staff member or a guest. Of those I could tell, the majority were staff members who came in for a quick, motionless and quiet moment. In all the healthcare facilities observed, the noise and movement of the patient floors was high, allowing chapel and prayer spaces to be an oasis of silence and stillness. The

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formal services held in the chapel several times a week were broadcast via closed circuit television into the patient rooms.

Recalling the afore mentioned reliquary of prayer request in the chapel, the second chapel type at Hospital B was observed. At the entry lobby of the hospital, a cross is strategically placed, much like shrines placed in every religion, for easy physical and visual access when entering and exiting the hospital (see figure 29). The size is large, reaching over six feet in height, and sculpturally freestanding in natural light of a lobby window. The cross is contemporarily styled to mimic stacked horizontal layers that texturally form a cross. Several small sticky note pads are left at the base of the cross for general use. Over several weeks of observation, consistently dozens of requests were stuck to the cross. These requests are gathered daily and placed in the glass reliquary prominently located in the chapel.

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Figure 29 Hospital B Shrine is located at the main entry of the hospital. The basket contains pads and pencils.

The third chapel space type located at Hospital B is the patient floor prayer rooms of which there are five. These small spaces are visually camouflaged and are located between the public elevators and nurse stations, but because they are without a door, are to a degree, visually accessible from the major public corridor (see figure 30). Unlike the formal chapel, the exterior of the space is announced much more prominently by a significant wall texture change of paint to stone (see figure 31). The roughly 60 square foot space is furnished by an accent table and two lounge type chairs (see figure 32). Above the accent table is an expressive large cross formed by

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two crossed over scaled nails. Again, mimicking the main chapel, the lighting is dramatically focusing on the cross.



Figure 30 The prayer room is located on patient floors. The prayer room is given an architectural announcement by the change in texture (stone surround) and arch of entry.

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Figure 31 Prayer room interior is shown in the photo above repeating the chapel dramatic lighting of the cross.



Figure 32 Prayer room furnishings are scaled for lounging.

These prayer spaces are often, physically and figuratively, used as a space between the patient and the chapel. These spaces were not a part of the original architectural scheme but were

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introduced within the last five years by converting housekeeping storage on each floor. The location of the prayer room allows for minimal distance from the patient but allowing for personal, almost, private conversations or prayer. The lounge chairs distract from the momentary actual use of the space suggesting a place where waiting is encouraged but the large religious symbol of the cross seems to deter undesired loitering.



Figure 33 The north facade, symmetrical and imposing, illustrates the transitional styling of the chapel at Hospital D.

Hospital D's chapel, completed in 2012, is a monumental modern edifice while the plan is based on the ancient four-sided symbol of the quatrefoil (see Appendix K). It is sited at the center of the growing campus which is bisected by five lanes of an urban traffic artery. Across from the chapel and over the busy artery are much of the hospital functions which are reached by traversing several pedestrian bridges. As seen in figure 33, the exterior of the chapel is clad in a manmade stone white material with brightly colored hand-poured glass brick corners and gold leafed roof elements. The whitish color allows the poured glass bricks to become animated depending on the time of day.

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Figure 34 Hospital D Chapel, scale and urban placement are shown among the traffic of cars. The photo shows the remoteness of the chapel from the main hospital. A green pedestrian bridge can be seen to the right of the chapel.

Due to its location, close to a bisecting campus corner, the chapel has become an urban scaled landmark for the city, as seen in figure 34. Being visible from the street, upper floors within the hospital and from a nearby interstate, it is used as a reference point by many in wayfinding far beyond the hospital. Also due to its corner location, it acts as a planning hub for the campus, but is still far, almost 500 yards, from the patient centers of the hospital.

The chapel is entered via the north sided parking lot. The traffic noise is very evident, as is the busy visual information given by other buildings, parked cars and minimal landscaping. Upon entering the small glass brick walled vestibule, one is struck with the shift in exterior visual and acoustic noise to silenced space. The small impactful vestibule, in addition to the silence, is emotionally shifting. The shift is accomplished for the participant being inside of the transition space's dazzling color spectrum constructed of the glass brick. After passing through the vestibule, the participant enters the nave. The nave is expansive and is broken into three sections following the quatrefoil's geometry. The fourth section is reserved behind the alter as the sacristy.

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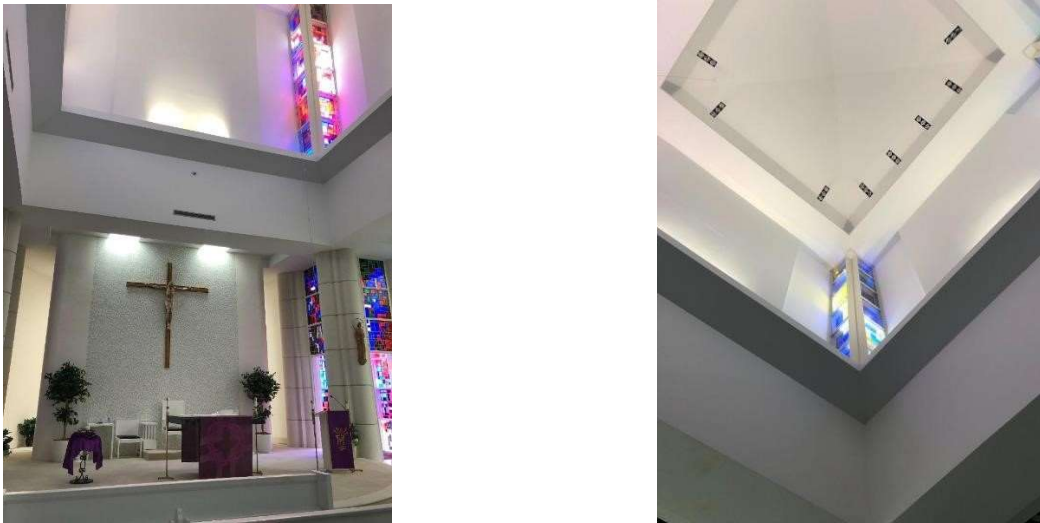


Figure 35 Chapel interiors are shown above. The basic color scheme is white; large square and curved white volumes with vertical shafts of colored stain glass highlighting the corners of the chapel.

In contrast to the vestibules, the nave appears to be white in color with accents of color provided by seasonable textiles and slivers of the glass brick being glimpsed through corner openings (see figure 35). Abundant natural light, contrasting with the chapel darkness at Hospital B, spills into the nave via a square centrally located shaft that supports an exterior tower. The white pews become sculptural as the movement of the sun shifts the interior light. The liturgical furniture, oddly scaled, was repurposed from a now destroyed earlier chapel. The corners of the nave being constructed of the colored glass brick are individually color themed, majority red, majority cool blues, majority yellows and majority green.

The chapel, which remained open for individual's use, was vandalized in 2015 and it was decided, at that time, to only open it during scheduled services. My first observation took place privately with the head chaplain. It was during midday and the light was almost directly overhead, and with no electrical lights being used, the natural light was fully exposed. Auxiliary spaces and smaller support spaces were examined for their architectural support of the chapel.

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The chaplain and I spent several moments in silence, observing the architecture and light, enjoying the wonderment.

During a regularly scheduled late afternoon mass the second observation took place. Arriving early to observe the chapel in an empty state and note the number and type of attendees. I had invited my mother, who lives close to St. Dominic, to attend with me. She has long been curious of the chapel's interior as had a daughter who worked nearby. My daughter, being an artist, was most interested in the glass blocks effect upon the interior, joined us. The three of us sat towards the rear, nestled into one of the lobes of the quatrefoil, watching the natural light, accompanied by a lone nun preparing the chapel for the mass. The traffic sound had totally dissipated to be replaced with a loud ticking of a hidden clock. The atmosphere had changed from the earlier observation, the light through the filtered colored bricks was more animated. As the time approached for commencing the mass, attendees created sounds entering, lowering prayer benches and whispering among themselves.

Examining each person that arrived, I noticed that over thirty of the forty-two attendees were wearing official hospital employee badges. People sat in a scattered pattern across the chapel mirroring the splattering of natural light that was falling from the many windows in the chapel. Against the white pews, the different dress of the attendees also begins to contrast and enhance the different colors of the glass brick. Besides the time marking cadence of the ticking clock, sounds that emerged were those of squeaking pews and shuffling feet. The muffled voice of the priest drifted from behind of the sacristy wall and then he appeared on the slightly elevated ambo, the ancient mass began.

The liturgical exchange between the priest and the congregation went as prescribed and was accented with an occasional nun played piano. The sound was clear and there was little

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reverberation which accented the chant like quality of the music. The priest gave a short sermon based on a reading from the Bible that stressed the importance of family, respect of elders and inheritance. Being accompanied by my mother and a daughter, this concept of generational religion gained a deeper understanding and acceptance when mingled with his words. When weighted with the hypothesis of Tix, cited earlier, which highlights the genetic possibilities of an individual being predisposed to be religious, the determinable quality of the chapel observation seems overwhelming, if not predestined (Tix, 2017).

Hospital D maintains six prayer rooms scattered around the campus of which three are private due to the patient population they serve. The main prayer room is located adjacent to the main lobby and served as the original 1960s chapel (see figure 36). The small windowless prayer room is located next to the lobby restrooms. As passing from the lobby into the prayer room the lighting and coloring darken (see figure 37). The sounds emitting from the corridor are fully audible accented with the occasional flush of the adjacent bathroom's toilet.

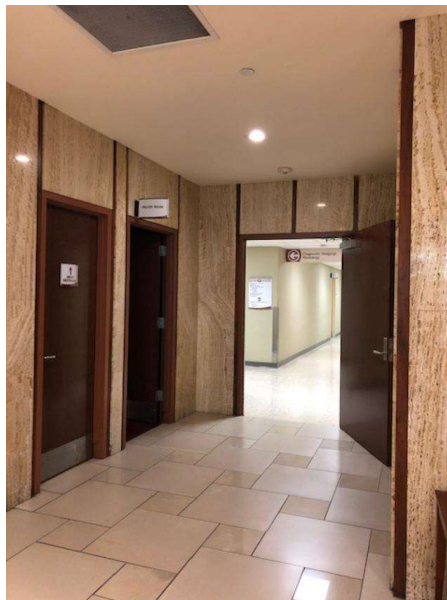


Figure 36 Entrance to Prayer room with toilet next door. The signage is minimal.

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Figure 37 Entrance showing change in finishes and quality of light from corridor.

The style of the furnishings is contemporary with the modern, almost brutalist architecture. The visually dominant table, formally an altar, is exposed concrete which contrast with stained oak vertical paneling (see figure 38). As the slightly elevated platform reveals, the space and seating were originally focused towards the round concrete table/altar but apparently shifted to its present configuration focused on what was a side wall.



Figure 38 Interior of prayer room showing old altar area with seating turned to face wall. Concrete altar holds prayer request and open bible.

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Upon the altar table are several items for visitor use, as seen in figure 39. Among these items is an open Bible (with a note not to draw in the Bible), a small sign with a Lenten prayer and small woven basket that is for prayer request, pads and pens are also provided. The prayer requests are collected almost daily and taken to the chaplaincy offices for prayer. The patient is informed of this service upon arriving at the hospital.



Figure 39 Prayer room altar table with Bible and prayer basket are shown in photo above.

The seating faces a wall where a framed nineteenth century print of Jesus's crucifixion is hanging. The seating is classic midcentury walnut wood frame. The upholstery fabric is a small scaled green leaf pattern that traditionally contrast with the rich burgundy carpet. Upon the old altar wall is a large silver toned art piece, see figure 40, that is descriptive of the worlds five great religions (Christian, Buddhist, Islam, Hindu and Judaism). There is a framed explanation of the art piece.

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Figure 40 Chapel art showing the five great faiths: Christian, Islam, Judaism, Hindu and Buddhism).



Figure 41 Typical prayer room entrance with no signage or architectural announcement.

The prayer room is convenient to the casual passerby because it is located very close to the lobby, which is a positive for discovering (see figure 41). It also is a convenient space, as I observed on several occasions, for an employee to make a quick private telephone call. As witnessed by the many daily written prayer request, the cramped configuration of the seating and constant lobby noise discourages long meditations or contemplative prayers. The third type of space observed at Hospital D is a typical prayer room. The windowless and door less room is

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typical of several located across the campus. The observed room is located on a corridor that is easily accessible for public or employee use, several employees walk by during observations.

The room is furnished much like a waiting area with seating for six and cocktail tables. The only religious item is a bible which is moved from my observation to observation, conveying the sense that someone does use the space (see figure 42). The art pieces are traditional landscapes suggesting ideas of a view.

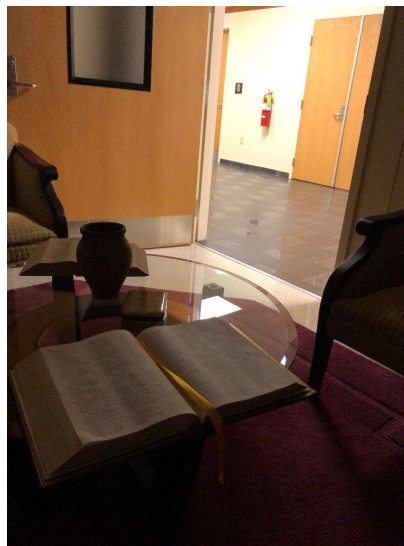


Figure 42 Prayer room interior looking out into the corridor is shown in the photo above.



Figure 43 Hospital k Chapel entrance, reception desk and large stained-glass window are shown in the phot above.

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The third healthcare facility chapel observed is located at Hospital K in Brookhaven, Mississippi. Hospital K is a ninety-nine-bed medium sized acute care facility. I have provided and continue to design services to the medical facility for ten years which includes a 2010 chapel renovation. The renovation was limited to new furnishings which were based on an owner request of making the chapel more useable for counseling (see Appendix L).



Figure 44 Hospital K chapel interior photo showing large stained-glass window from inside of chapel.

The chapel is located adjacent to the main lobby in a triangular and residual feeling room (see figure 43). The entrance into the chapel is slightly obscured from the line of sight of the lobby user. Infiltrating the chapel area, there is constant noise from the nearby main telephone switchboard, televisions and voices (see figure 44). The color of the chapel space is rendered in earth tones and the furnishings are transitional, from traditional to moderately contemporary (see figure 45). Constituting the religious appointments, there is a large bible displayed on a side table and there is a large traditional religiously themed stained-glass window that mediates between the chapel and lobby. The brightly colored stained glass was visible from the lobby and from the

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interior of the chapel. The large size of cross schemed stained glass served as a landmark in the busy corridor/lobby space and object of contemplation from the interior. The size also began to suggest a large cathedral scale or repurposed object. Suggesting the beginnings of the idea of awe, as discussed in the literature review, from the interior but conveying vastness.



Figure 45 Chapel K interior furnishings are more residential in look and styling. The conference furniture configuration was to aid in counseling.

The observed chapel is used as a side room to the lobby at Hospital K. Observing a person utilizing it much like a phone booth, by quickly ducking in, shutting the door to make or take a private call. The chapel was not observed being used for any religious or counseling purpose. The chapel is well located and as the scale of the stained-glass window suggest, capable of becoming a landmark for patients and staff. There is no method of receiving prayer request or chaplain services other than direct physical contact. The chapel, in reflection, is vulnerable to observation, surrounded by too much sound and poor selection of furnishing that suggest lounging. It meets the criteria of meeting place but falls short when addressing wellbeing.

Recently, trying to suggest a more sacred area, I rendered a new memorial plaque in stained glass, as seen in figure 46.



Chapter 5

First Finding; Wellbeing awareness. Wellbeing is an emerging field of study for science or psychology and architecture incorporating an awareness of wellbeing's importance is the first finding. The importance of wellbeing upon health can be demonstrated by one of the chaplains, when interviewed, plainly and without any reserve, stated, "spiritual wellness affects the body". Wellbeing, as pointed out in the literature review, is the currently the idiom for the complex combination of external factors that have impact on our health, mental state and overall feelings on life. The knowledge revealed by the chaplain's statement above has long been part of religion but only in the past few decades become generally accepted as a contributing physical health factor by the scientific and medical communities. Wellbeing is now being measured through a myriad of psychological and scientific testing. The emerging data demonstrates the importance of faith, prayer and meditation and its positive impact on many different aspects of

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life. The healthcare facility's first steps in recognizing wellbeing as a contributing factor of health is dedicating space for it to occur.

The healthcare chapel has a unique and singular position to aid, from a spiritual perspective in nurturing and impacting of the wellbeing of patient or medical staff members. It also has the opportunity through physical means to affect the user's wellbeing. The empathetic designer should consider the wellbeing needs of the patient and the staff when redesigning or designing the chapel not as a rigid set of guidelines but a creative plum line from which to measure design success. Relevant architectural issues are expressed in the observation and correlation of the healthcare chapel's architectural form with wellbeing. As an architect who recently designed a small chapel explained in an interview that the chapel has the opportunity through architecture to "reframe the users (state of) mind". An interviewed chaplain explained the gravity of the chapel space by dramatizing a possible scenario within the chapel, "So, I think that prayer is one aspect of wellbeing, you know, when people come into this room (the chapel), there's a lot of issues that could be going on. I mean, who knows what they do, who knows, maybe it's a quiet time, maybe they're facing surgery, maybe they just dealt with a worst-case scenario, maybe there's challenges at home, who knows....".

Second Finding; Wellbeing and Security. The second finding, closely related to and encouraging wellbeing, the chapel offers security. Security was defined by several being interviewed as "sheltered", "a place of refuge" or "protected". These are desired physical properties of the chapel, as well as, spiritual properties that need to be present to aid in wellbeing. At this point another paradox of the chapel will be highlighted, counter intuitive to thoughts on providing generous amounts lighting to generate feelings of security, an observed

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chapel was shrouded in dark shadows in figure 48. The chaplain explained, “if you're in there, maybe in prayer, and someone else comes in there and you share the space. If it's darker, it's easier to share the space but still feel like you're in private or have some privacy. Maybe the fact that you can't really see the person on the other side of the room grants you that sense of privacy.”



Figure 47 Chapel at Hospital B, photo above, is very dark but paradoxically emotes security.

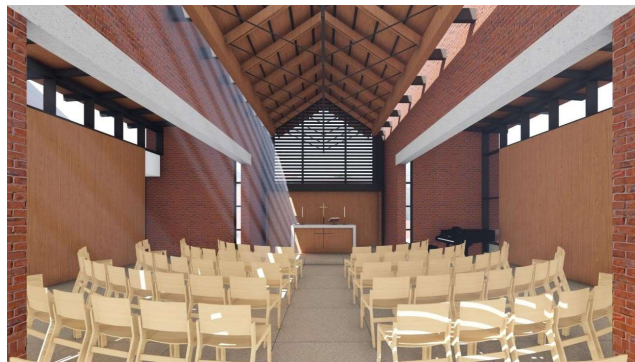


Figure 48 The chapel achieves a sense of security by using tall encompassing walls which eliminate exterior views and the use natural lighting from the above vaulted ceiling.

Protecting the security and providing the physical and emotional security should be a primary goal of the designer. If the sense of security is lost or ignored, it has detrimental effects on the individual and the chapel. Security can be designed as blocking a connection to the exterior as seen in figure 49. A chaplain explained, “the chapel should be a safe place for you

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and your family. No matter what it is (if the chapel is secure) the chapel will contribute to their wellbeing”. One of the researched and observed chapels had to limit access and introduce intrusive cameras due to the physical lack of security.

Third Finding; The Manifestation of Prayer. The third finding is the role of the chapel as a physical manifestation of prayer. Giving the chapel space, a sense of security and a means to manifest prayer are how a chapel provides for wellbeing. Before addressing the role of the chapel as a manifestation, an understanding of what prayer is might be beneficial. Prayer or meditation is practiced by most religious faiths and these different practices are outlined in the literature review of this research. Most of the prayers offered in the chapel setting, as described by several of the interviewed chaplains, are prayers of “request”, “searching” or “seeking answers”.

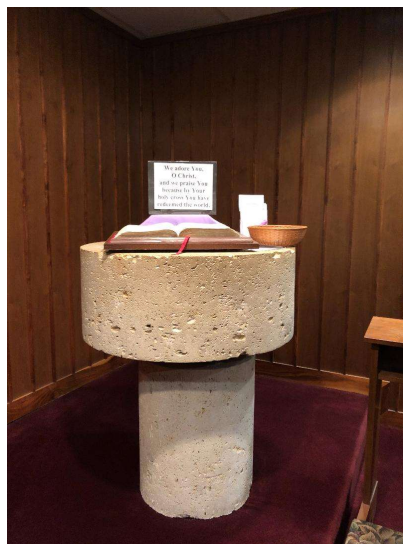


Figure 49 Prayer requests gathered at repurposed altar at Hospital D prayer room.

The chapel was observed as a place of prayer, like the famous Jewish Wailing or Western Wall in Jerusalem, where prayers were silently said, but were also read aloud and the written prayer requests were literally physically kept and/or displayed. The point of gathering prayer

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requests can be seen in figure 50. At the Western Wall, written prayers are written and inserted into the cracks of the wall as an iteration of requests. In the healthcare chapel the written the prayer requests of many patients, public and staff are gathered, and one instance, displayed in a large glass container as in figure 51. The chapel serves as a physical reliquary of prayer requests is a new practice but is not a new phenomenon because prayer manifestations are practiced in many faiths. Examples of prayer manifestations are words artistically displayed (calligraphy) of a holy saying or writing in a mosque, candles lit in Orthodox Christian church or the lighting of incense at a Buddhist temple. The size of the hospital, because of the sheer number of requests, may induce this behavior of displaying written prayers due to the lack of available chaplains. Another possible explanation of the new practice is drawing from the Western Wall of Jerusalem, acting as a simple need for reiteration of a prayer request. Another hypothesis might be a concerted effort to promote an emotional security by genuinely having an expression of inclusion, shared humanity and empathy. At this point another paradox is offered for consideration, that of the silent and invisible prayer is made visible and given sound, thus manifested in the chapel.



Figure 50 Prayer Reliquary at chapel at Hospital B houses invisible prayers.

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Another function observed, under the umbrella of the idiom of chapel, dedicated to the function of prayer is the prayer room. The relevantly new space of the prayer room was observed as a smaller “mini-chapel” non-demarcated chapel. The newer architectural type, prayer room, is smaller in size giving it a more secure, private and intimate perception. An interviewed designer referred to the prayer room as “quick place to get away”. Typically, these rooms are in patient room areas or departmentally. In large hospitals chaplains are designated according to departments and have a convenient prayer room for counselling or prayer. Generally, the larger the observed hospital, the greater the number of prayer spaces provided for use.

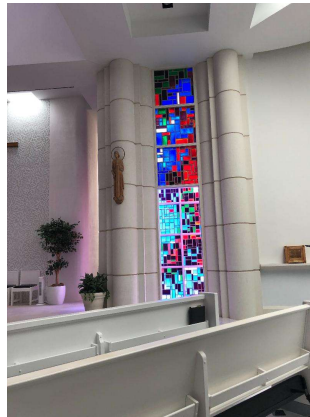


Figure 51 Color is introduced into chapel at Hospital D using artistically designed glass blocks.

Fourth Finding; Encountering Beauty and Sacred. Comparing the like architectural qualities of the chapel and the prayer room leads us into the fourth finding, the contribution of beauty and sacred being present to aid in the chapel’s role in wellbeing (see figure 52). Both types of spaces, chapel and prayer, were intended for the same functions, besides the actual size there was little difference in attempts to achieve sacredness. The need for beauty was, observed in interviews, from non-essential to intrinsically required. Words from “unimportant” to express the spread of opinions on the need for beauty in the traditional sense. Traditionally elements such as adjusting the height of a space, dramatic natural light, large art or extraordinary materials are

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manipulated by a designer to achieve a sense of sacredness. Awe, as discussed in the literature review was required to achieve the sensation of sacred. In the observed chapels, the less that sacred objects were displayed (textiles, icons, symbols) or attempts of beauty (art, manipulation of architecture, design features) were not physically present, the less awe was induced. Less was just less when experienced in the observed chapels and prayer rooms. An example of extreme use art and design can be seen in figure 53. The desire, by religious and non-religious, to approach and enter a chapel is heighten when the chapel perceived as aesthetically pleasing (Niermann, 2019).

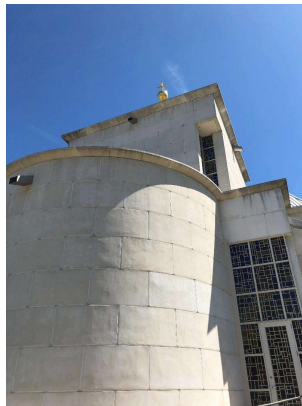


Figure 52 The dynamic exterior of chapel at Hospital D mixes modern ideas of beauty with Baroque shapes.

In opposition of what was previously stated regarding the need for beauty, one chaplain explained on the link between prayer and beauty, “beautiful space? I would say yes and no. I guess I take this space, as it is. I've been in many different places, with many different chapels and churches. I take them as they are.” As to the amount of manipulation of architectural elements or religious symbols, sacredness, there was some disagreement among those interviewed, existing literature and my personal beliefs. A simple approach may be the introduction on an artistic but minimal scale as seen in figure 54.

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Figure 53 Art in chapel at Hospital D is used to propose inclusion in a spiritual place.

What is agreed upon was a need to, as one chaplain metaphorically described as, “set the chapel apart” as the imminent and primary impression. Beauty, sacredness and awe can be expressed by the absence of an element, such as light or sound. Light was absent from Hospital B’s chapel and it conveyed a sense of security and sacredness. Contrary to most noisy healthcare spaces, the silence of a prayer space or chapel is the most common architectural feature observed or, often the case, desired to set the chapel apart. Silence has a complicated connection to beauty which goes beyond this research, but to varying degrees under the designer’s influence. Answering a research question, the chapel’s ability to offer silence and silence may be the answer to preserving sacredness across multi religious lines.

Fifth finding; chapel as landmark. The chapel’s ability to have a dual role as a landmark in the healthcare facility’s wayfinding scheme and to be a landmark in the personal path or story of an end user of the chapel is the fifth finding. The nomenclature “landmark” is used according to the planning principles created by Kevin A. Lynch in his seminal urban planning explanation “The Image of the City” (Brasuel, 2019). Not only are landmarks physical

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places that help us navigate a town, like a bell tower or minaret, but also assist by marking places in our memory that help in recalling events, experiences and places. By the very definition of landmark, a degree of visibility of the chapel must be present. The visibility can have varying forms, such as the enlarged stained-glass window in Hospital K (see figure 55) or the urban scaled strategically sited Hospital D chapel (see figure 56).



Figure 54 Large stained-glass window from the preexisting hospital creates a visible landmark within the hospital



Figure 55 Hospital D Chapel has become an urban scaled landmark.

The visibility of the chapel, being a wayfinding landmark, is desired in accomplishing a positive role in wellbeing of patients, but the chapel's visibility is almost deemed essential by the

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medical staff. A chaplain explained the need for the visibility as a “reminder of why we're here”.

As the literature review revealed, there is a growing desire for religion to be more visible, this desire holds true within the healthcare facility. From a planning tool, a chapel planner explained, the chapel should “be in the middle of the things you are”. On a much more intimate and experiential level, a chaplain talked of the chapel as emotional landmark by saying” if there is a God. I am seeking him right now” of an individual’s landmark of a pivotal moment in time.

Sixth finding: three spatial types of chapel. As previously mentioned, there are several types of chapel spaces being used in the modern healthcare facility. Because of planning or economical restraints, the formal edifice of a chapel or prayer room cannot be utilized as a landmark, another space type, the shrine can be utilized for visible landmark. The sixth finding is the chapel encompasses three distinct space types. Shrines are the third space type under the nomenclature chapel, which also includes chapel proper and prayer room. Shrine types, possibly due to their economy of space, materials and funds, are increasingly being utilized in the healthcare facility.

The observed shrines were used as a depository of prayer request, but as stated above, are employed as reminders of purpose or emotional support for patients, as well as medical staff (see figure 57). Shrines, like landmarks, are an ancient architectural devise encompassing all religions and faiths. Landmarks, both physical and emotional, are universal by humans, which leads us to the consideration of the chapel as ecumenical.

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Figure 56 Shrine at Hospital B is the most visible chapel type space.

Finding seven; ecumenical expression of faith. Even though all the chapels observed were Christian, in this research, they all addressed universal human commonalities, as mentioned above, such as a need for peace, answers and landmarks that give physical emotional direction. A chaplain quoting another pastor addressing a small group in the chapel exclaimed, “You know, this is this place looks a lot more like heaven than my church. People from every walk of life, every color, every creed, and they’re all here.” The interviewed chaplains, being Christian, were all exposed to and compassionate towards other religions. The healthcare facility, and the chapel in particular “should be caregivers to everybody who darkens our door with no conditions” proclaimed one chaplain. One observed prayer space, located off a main healthcare lobby, had a large art piece that depicted the five great faiths. Another chaplain explained that space would be made available, “we are open to all of those groups, if they choose to pray, want to pray, need to pray. They are welcome.” A designer of a chapel had made a non-Christian space within the chapel, because other faiths “they needed to be honored”. The research question of how this

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inclusion is accomplished, is answered by the interviewed chaplains and the utilization of different chapel types for highlighting or honoring various faiths.

Honoring all faiths becomes a complicated and challenging fete when reflecting upon my seventh finding as the chapel as expression of faith. A chaplain described it as “Because it represents, a chapel represents the system or the hospital’s beliefs. To have a chapel and to have it functioning and to have administration and physicians and nurses that use a chapel is the evidence of faith and their *personal* faith”. Personal is italicized because it is to emphasize the universal and human expression of faith over religious symbols: the Christian cross, the Star of David, the Islamic star and crescent moon. Faith is what impacts wellbeing, faith in healing or compassion in suffering. The chapel’s expression of faith is also a sign of compassion or a chaplain explained “compassion is to suffer with..... seeing somebody (the chapel) to suffer with us” and the chapel is to give an “encouraging type message. That we're just trying to..... (looks around as if looking for words) to help convey words of comfort and hope, maybe in the middle of difficult circumstances”. Not all those receiving “comfort and hope” are patients but rather, employees of the healthcare facility.

Eighth finding; chapel as church. The next finding in this research is the emerging data that shows the chapel as a church, one constructed from parishioners employed by the hospital. The new church type first emerged within the research in the literature review and was witnessed on several observations. One person interviewed said as our culture changes, the chapel may be “the extent of it (religion)” for the typical person. Larger healthcare chapels, where consistent events and services are observed, have seen the employees gravitate to the ease of attendance and the

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congregation's shared personal experience within the medical field as attributing parts of the growth. "So, we're in a lot of ways we are a church. And the chapel kind of is maybe the, the place that maybe is the place that cements all that our faiths that comes together" commented one chaplain, then later added "Chaplains can be their caregivers and for a lot of these people. We are the pastors for them. Our parishes are our units." This answers one of the research questions of "who is the chapel for"; the medical staff, the patient and the community.

The chapel is well used space and as a church, then provides all the formal functions of a traditional church, such as memorial services and weddings. Like a traditional church, the chapel is used, as one chaplain pointed out "We also use it for services. We have a Sunday morning service at 8am and a Wednesday service at 11:30. Every week it is used, people come from around the hospital and families sometimes even patients, but not very often, but staff regularly....." Another chaplain added "It is used four days a week, it's at 6:25am and one on Wednesdays at 5pm. And on Saturday. We have the Sunday celebration at 4:30." The observer of the healthcare chapel quickly discerns the paradox of the quiet reflective chapel space against the well-used space meeting or service space. The arbitrator and manager of this paradox falls into the sphere of the chaplain.

Ninth finding; chapel is chaplain. The final finding is the chapel is the chaplain or vice versa, the chaplain is the chapel. Many of the functions and services desired by the chapel are performed by the chaplain. He or she figuratively carry the chapel onto the patient room floors and into the surgical suites. Like the chapel, the chaplain by being a still and non-anxious presence during movement and pain offers the patient and medical staff peace (University of Maryland Medical Center, 2019). One interviewed chaplain described it as "you are the spiritual caregiver to those that you work shoulder to shoulder with", simultaneously, the designer wants

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the chapel to be to be the spiritual landmark, center or shrine to the healthcare facility. The chaplain performs many duties within the healthcare facility, from counseling to public affairs. Of interest and importance to the designer is designating adequate space and understanding this complex role to be housed. The chaplain's office functions as viewed by chaplaincy or as described by one chaplain, as "storefront" for the chapel.

Chapter 6

Discussions, Guidelines and Conclusion

The following discussions and guidelines are offered for the future designer while designing or renovating an existing healthcare chapel. Unlike the military and religious guidelines reviewed in the current literature section, these guidelines are offered as genius ideas or conceptual jumping off points for the designer. Each future designer using these guidelines will offer the patient, medical staff and the greater community a positive and enhancing wellbeing architectural experience findings of this research.

Discussion one; The need for the designer to stay current with wellbeing data.

- Understanding the stagnation of chapel design in the past
- Using architectural precedence as a guide for chapel design
- Keeping current on changing and growing Wellbeing body of knowledge

To have a future impact on its continuing growth, an understanding of the past architectural stagnation (mainly twentieth century) of the healthcare chapel would be beneficial. In part, the design stagnation occurred because the chapel is not an income producing square footage occupier of the overall healthcare facility. The lack of income production of the chapel

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impacted the often-awkward location of the chapel, the lack of wayfinding signage to and for the chapel and the residual quality of the common chapel space (see Hospitals B and K observations). Oddly as the scientific understanding increased over the past one hundred years, the size and role of the chapel in the healthcare facility has decreased. In the last one hundred years, with a few exceptions, education and practice in the medical and architectural field was attempting to discourage the role of religion in healthcare, which eventually diminished the role of the chapel in most modern healthcare architectural schemes (Kisacky, 2017) The contemporary chapel is still an architectural type worthy of attention and attention, as seen in the work Frank Lloyd Wright, Phillip Johnson and others. Another contributing factor in the lack of design growth was the lack of knowledge, evidence, data or the belief in the role, especially where religion or the chapel are concerned, wellbeing plays in one's health.

Guideline one. In the future, as the data concerning wellbeing grows and becomes even more conclusive, so should the impact and involvement of the chapel in providing health to the whole person. The concept of the size of chapel functions and their spatial requirements has grown throughout my research to encompass shrines, prayer rooms, counseling areas, chaplaincy offices and awe-inspiring spaces, all under the nomenclature of chapel. As the expansion demonstrates, these differing healthcare chapel functions within the overall facility should be architecturally impacted in quantity and quality reflecting religion becoming more diversified and data supporting the positive impact of spirituality upon health emerges beyond what is covered in the current literature section. The mixing of the healthcare sciences with the

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transcendental qualities of the chapel, needs to be orchestrated by a knowledgeable and informed designer.

As this research, current literature, site observations, interviews and findings demonstrate, the healthcare chapel is slowly changing after centuries of architectural stagnation and is emerging as a team player in patient care. Dispensing spiritual aid via prayer, meditation and quiet contemplation, and enhancing medical treatment by treating the whole person, the chapel is architecturally present in many forms to meet patient and staff wellbeing needs. The form of the chapel may continue to adapt and change with diversity and technology. The chapel is still rooted in architectural precedence of chapel, prayer space and shrine.

Discussion Two; The Changing Chapel Population and Effects. The common adage “the church is for sick” attempts to explain the diversity of humans usually attending any given religious organization, I initially discovered in this research that this adage was shifting as the healers have started becoming the church. The shared stress of giving care and the convenience of the chapel may continue to aid in the chapel becoming a religious entity comprised of the hospital staff. Then reflecting on the history of the chapel, one is struck in the reoccurring nature of human activity and behavior. The limited medieval monastery was similar in structure to the contemporary chapel, where the healers were in medieval times, and now, in our contemporary age, constituting the population of the church. The monastics are now replaced by the medical staff. The medical staff are receiving and providing healing and wellbeing affirmations through utilization of all the positive attributes and capabilities of the chapel.

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Guideline Two.

- The architectural program is impacted and complicated
- Issues of visibility and landmarks
 - Personal security challenged

The changing chapel population to a more permanent staff based will impact the architectural qualities of the chapel. With the parish qualities of a chapel comes the need for office space, meeting space and other auxiliary type spaces, which raises basic planning issues for the chapel location to best serve the wellbeing needs of staff and patients. Reacting to a growing staff population and to a sense of “separateness” should these chapel associated spaces be grouped like a complex similar Hospital D? (see appendix K) Hospital D separated the chapel and auxiliary space away from the patient wings, losing an important integrated quality and convenience factor. Or like Hospital B (see appendix J), possibly losing some sense of sacredness, should these spaces be decentralized or dispersed throughout the hospital allowing for ease of use?

Discussion 3; providing emotional and physical security. Other issues and questions that influence the chapel’s architecture and could enhance wellbeing is the sense of emotional and physical security. If the chapel is gaining a wider role in the community, will it require it to be more visible and accessible? The visibility of the chapel will aid in building a sense of security while also building a landmark for visual wayfinding and psychological grounding.

Guideline Three. Landmarks help in physical and emotional wayfinding, making sense of a complex world. To be successful, a landmark need to be visible and, to some degree, approachable. The benefits of achieving a landmark status may damage the sense of sacredness if

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made too accessible. Another design challenge is to balance the wellbeing desire for the chapel to achieve visibility with the need for a refuge that is offering quiet and stillness.

Discussion Four: Shrines in the Healthcare Facility

Shrines may fill the gap between chapel desires of sacredness, separateness with visibility or security. Shrines, strategically located throughout the healthcare facility, could be viewed as pieces of the greater chapel. Like the prayer spaces used by patients and staff in Hospital B, the shrine could be figuratively between the patient room and the world, allowing for moments of reflection, encouragement and prayer.

Guideline Four.

The incorporation and visible manifestations of prayer request, as experienced by Hospital B, could be dependent on religious practice and healthcare facility administration. The shrine could be expanded and designed to be mobile and include many parts, icons and symbols of different faiths (see Hospital D prayer space) which would address the need for inclusion, deepening the sense of security, while stylistically echoing the landmark chapel. A network of inter related shrines, much like permanent and mobile nurse stations, could be an ambitious architectural intervention to enhance the wellbeing of staff and patients beyond the predictable and traditional chapel.

Healing in the community, which is evident by the amount of visible inclusion, begins with wellbeing in each of the community's citizens. Wellbeing, both individual and corporately, are part of the total human healthcare experience and deepen the spiritual understanding of healing when given an architectural personification, as in the chapel, prayer rooms and shrines. The role of the chapel in providing wellbeing is supported by being a landmark, a holder of

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prayer and a spiritual hospital to the medical staff. How the personification of wellbeing is architecturally manifested is dependent on the knowledge and skills of the empathetic designer.

Conclusion

Wellbeing is an enigma and difficult to quantify. It is important to return to the definition of wellbeing as proposed by Inbaladas (2016) where wellbeing is defined with aspects of spirituality. This research concurs with Swinton that wellbeing is spiritual, individually unique but related to and in relationship with religion. Architecture often gives form to religion, for example spires, minarets, domes and shrines (S.R.Burge, 2016). Religion defines sacred and sacred is associated with prayer. Within the healthcare chapel a patient, as well as the medical staff's vulnerabilities are exposed physically through illness and emotionally through stress. Often using silence, nature, awe, architecture and art, prayer is initiated to encourage healing and consolation, all encouraging a positive wellbeing. The chapel has a dynamic role in overall role of the healthcare facility by providing care to spiritual and transcendental aspects of the person, thus aiding in the positive wellbeing of patients, medical staff and community.

This research pinpointed several key design qualities that would aid in the chapel being a successful carrier of wellbeing. These architectural qualities are intently broad, so they may inspire instead of dictate. The guidelines are widely adaptable to size and scope of project.

This research limitations are the lack of complete literature of the role of wellbeing on the individual's health, the role of wellbeing on healing and religions role on wellbeing and health. All these topics are under study, but long-term effects and data are still being gathered. As

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Americans become less religious but more spiritual, how will this affect the architectural form of the chapel, should be a future area of study.

All the chapels observed were in a Christian culture and lacked pressure for inclusion from other religious groups. Exclusion, based on religion, race or sex from the chapel was never seen or discussed throughout the study, but further study in a more diverse culture might deliver differing guidelines. The sincerity for inclusion observed and discussed in interviews was a positive and encouraging point of this research.

In conclusion, the healthcare chapel, from its medieval monastic roots, is still architecturally morphing to accommodate the needs of those seeking aid. The understanding of the science of health coupled with the enigma qualities of wellbeing giving the chapel form. The chapel form takes on religious identity through functions, art and design giving the viewer an opportunity to experience sacredness. While assumed this effort was for the patient's benefit, it is now being experienced by a growing number of healthcare staff, who are comfortable calling this their religious home.

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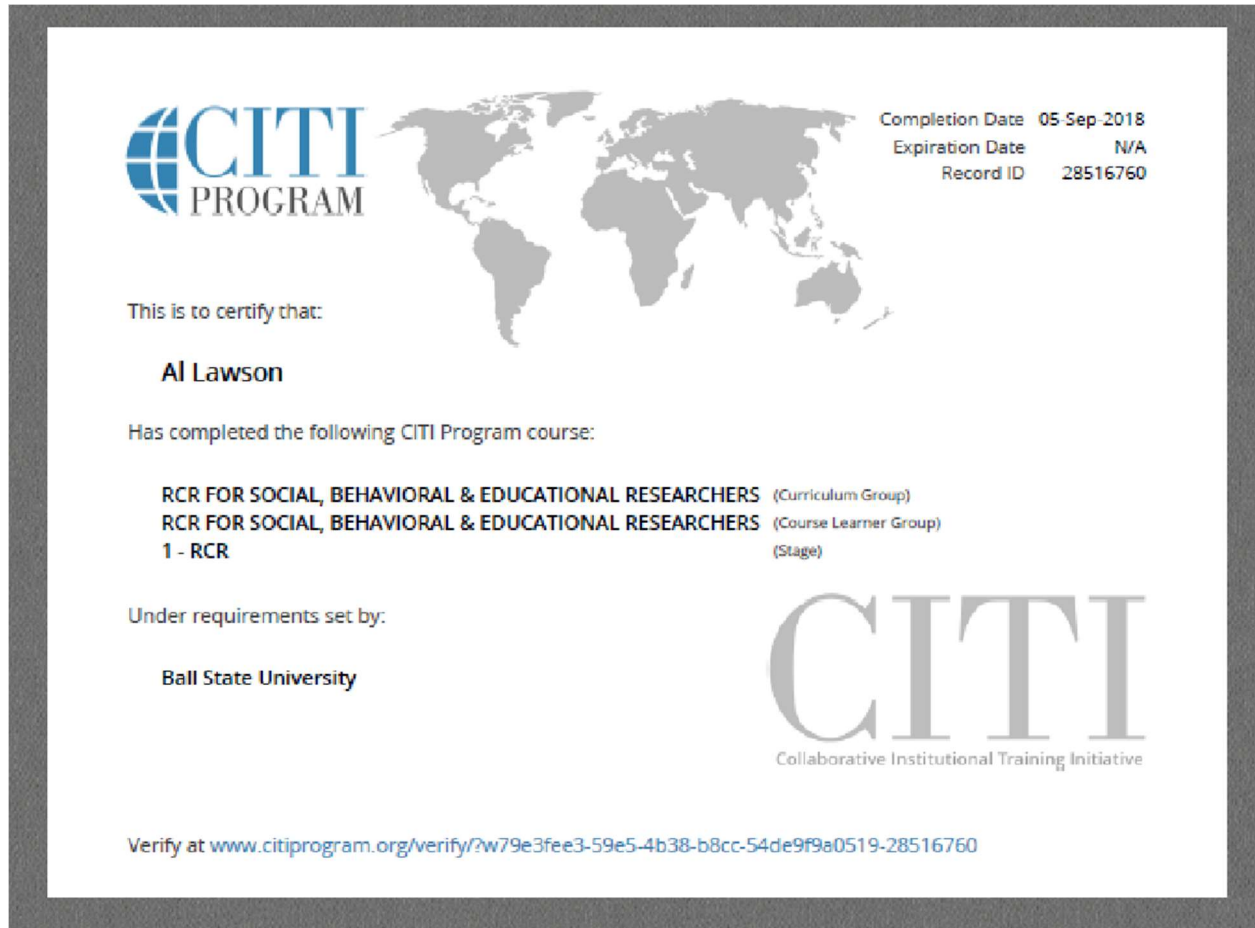
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Appendices

Appendix A



HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

Appendix B

CONSENT FORM FOR RESEARCH PARTICIPATION

January 15, 2019

Topic: How does the healthcare chapel promote the wellbeing of patients, medical staff and the community?

Al Lawson, Graduate student at Ball State University

IRB Study Number: _____

I am a graduate student in Ball State University's College of Architecture and Planning, Department of Construction Management and Interior Design obtaining a Master of Science (?) degree in Interior Design. I am planning to conduct a research study, which I am inviting you to take part in. This form has important information about the reason for doing this study, what we will ask you to do if you decide to be in this study, and the way we would like to use information about you if you choose to be in the study.

Why are you doing this study?

You are being asked to participate in a research study about wellbeing and the healthcare chapel facility.

The purpose of the study is to research the relationship between positive wellbeing and the healthcare facility's chapel or sacred environments.

What will I do if I choose to be in this study?

You will be asked to participate in an interview and or a focus group.

Study time: Interviews will take approximately 60 minutes and follow-up times may be scheduled for additional clarification.

Study location: All study procedures will take place at a place that is convenient for you and if available in or near the chapel itself.

I would like to audio-record this interview to make sure that I accurately record all the information you provide. I will keep these recordings in a secure location (password protected) and they will only be used by the researcher to validate during transcription. If you prefer not to be audio-recorded, I will take notes by hand instead.

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-I may quote your remarks in future written scholarship resulting from our interviews and in this case a pseudonym will be used to protect your identity, unless you specifically request that you be identified by your true name.

What are the possible risks or discomforts?

Your participation in this study does not involve any physical or emotional risk to you beyond that of everyday life. There may be some emotional stress if asked to recall certain circumstances that have to do with wellbeing and healthcare. You may skip any question or topic that you may not want to answer or discuss, just let the interviewer know and we will proceed to the next question.

As with all research, there is a chance that confidentiality of the information we collect from you could be breached –steps to minimize this risk, as discussed in more detail below in this form.

What are the possible benefits for me or others?

You are not likely to have any direct benefit from being in this research study. This study is designed to learn more about wellbeing and how the healthcare chapel may be a positive experience. The study results may be used to help other people in the future.

How will you protect the information you collect about me, and how will that information be shared?

Results of this study may be used in publications and presentations. Your study data will be handled as confidentially as possible. If results of this study are published or presented, individual names and other personally identifiable information will not be used.

To minimize the risks to confidentiality, we will limit access to tapes and materials from this study.

We may share the data we collect from you for use in future research studies or with other researchers – if we share the data that we collect about you, we will remove any information that could identify you before we share it.

If we think that you intend to harm yourself or others, we will notify the appropriate people with this information.

Financial Information

-Participation in this study will involve no cost to you nor will you be paid for participating in this study.

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What are my rights as a research participant?

Participation in this study is voluntary. You do not have to answer any question you do not want to answer. If at any time and for any reason, you would prefer not to participate in this study, please feel free not to. If at any time you would like to stop participating, please tell me. We can take a break, stop and continue later, or stop altogether. You may withdraw from this study at any time, and you will not be penalized in any way for deciding to stop participation. If you decide to withdraw from this study, the researchers will ask you if the information already collected from you can be used.

Who can I contact if I have questions or concerns about this research study?

If you have questions, you are free to ask them now. If you have questions later, you may contact the researchers at Al Lawson, (601) 594-6202, alelawson@bsu.edu

If you have any questions about your rights as a participant in this research, you can contact the following office at Ball State University.

Consent

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I agree to participate in the research study described above and will receive a copy of this consent form.

Participant's Name (printed)

Participant's Signature

Date

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

Appendix C

Document Review Protocol

Document:

Date:

Research Question: How does the healthcare chapel promote the wellbeing of patients, medical staff and the community?

Background: The medical community is slowly gaining or regaining the knowledge and confidence to treat the whole person within the healthcare facility. This care is being performed by a symphony of care givers in a facility that may need to change to address the holistic approach of treating the mental, physical and spiritual dimensions of the patient. The existing or a proposed chapel is the starting point of the care of the human spirit.

Data Collection Method and Place of Original:

Participants or Owners of Documents:

Size:

Summary:

Documentation:

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Appendix D

OBSERVATION PROCEDURE FORM

Researcher Name: Al Lawson

Date:

Research question: How does the Healthcare Chapel provide wellbeing for patients, medical staff and the community at large?

Background: Chapels have been part of the healthcare architectural scheme since the beginning of the hospital type around 900 AD. The acceptance of knowledge by the medical community of connections between spiritual and physical ailments has reintroduced interest in the role of the chapel in healthcare.

Observations will be conducted in the chapel to determine subcultures. These subcultures will be observed to determine how they use the chapel, what they are doing in the chapel and how they interact with other users of the chapel

Data Collection Method: Due to the sensitive nature of anticipated emotional state of most visitors, I will remain silent and respectful. For each visitor an observation protocol form will be filled out.

Participants:

Sample Size:

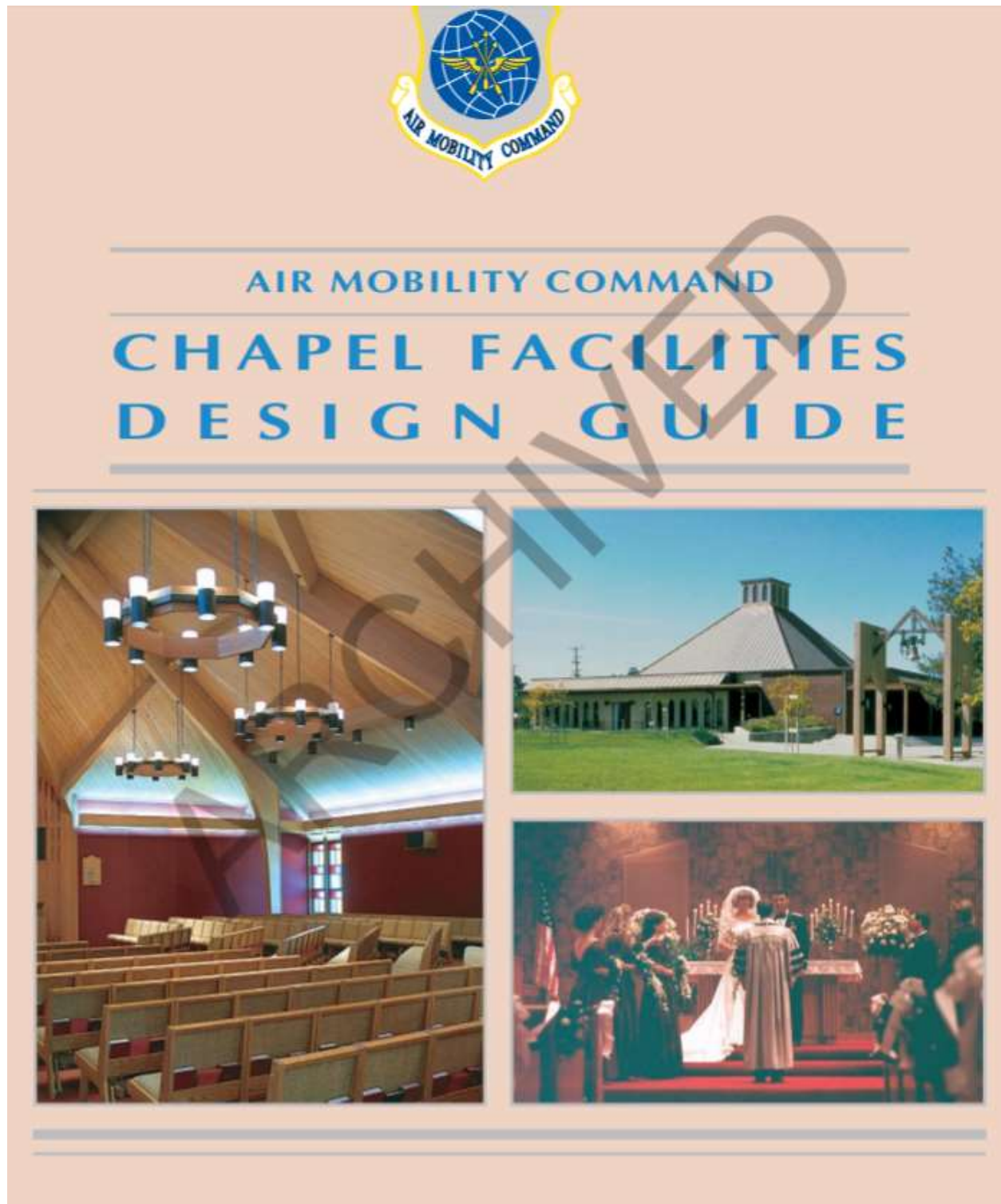
Ethical Issues: I will not take pictures of attendees. I will take pictures of facility. I will seek permission and further discussion from the appropriate authorities.

Data Collection Protocol: I will observe entry and the use of the space.

Documentation: Besides photographing, I will diagram the space and noted architectural features. I will document attendees and their actions and length of stay. I will obtain any printed information that is available. I will seek to set up an appointment with the appropriate authorities.

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Appendix E



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Appendix F (<http://www.usccb.org/about/doctrine/publications/index.cfm>)



Committee on the Liturgy

UNITED STATES CONFERENCE OF CATHOLIC BISHOPS

Issued by NCCB/USCC, November 16, 2000.

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Built of Living Stones: Art, Architecture, and Worship

Guidelines of the National Conference of Catholic Bishops

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The Chapel of Reservation

(American Council of Catholic Bishops, 2000)

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Appendix G

INTERVIEW PROCEDURE FORM

Researcher/ Interviewer Name: Al Lawson

As outlined by Holstein and Gubrium in the *Handbook of Constructivist Research*, collecting data using the interviews of participants who are directly involved with the making, maintaining or use of the chapel will give me means of a direct access to an experience or feeling of wellbeing afforded by the chapel. The model of Constructionism will be employed to describe how the chapel affects wellbeing. The factual parts of the chapel will become evident through interviews and the interviewee will allow for the understanding how the social realities of wellbeing are constructed and sustained.

The narrative analysis methodology will treat the accounts given in interviews as stories in the context of the healthcare chapel. In 2010, Gubrium further noted that these stories have the following features

- Stories are constructed in concrete circumstances and places.
- Stories are told with an audience in view
- Stories are eventful-they are stories of action with consequences
- Stories are always more than accounts: they are accounts that have been conveyed and stand to be reconveyed

My interview questions have been derived from the construction framework using an appropriate vocabulary discovered in the literature review.

Date:

PLACE

Research question: How does the Healthcare Chapel provide wellbeing for patients, medical staff and the community at large?

What do you like about the chapel we are in?

When was the occasion for your last visit to the chapel?

What are the most popular aspects of the chapel among the staff? Patients? Community?

What is wellbeing in your opinion?

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Do you think there is a connection between physical health and wellbeing?

Considering how you “fit” into the healthcare facility, how do you feel the chapel “fits” into the healing process?

What could help with promoting wellbeing in the healthcare facility?

What does the chapel have that helps or hinders your wellbeing?

What would be your projected outcome if the chapel changed to your specifications?

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Is there someplace else here within the medical facility that is special to you?

Is there someone else I should talk to concerning wellbeing or the chapel ?

Thanks for spending time with me, please let me know if you would like to add or think of something else.

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

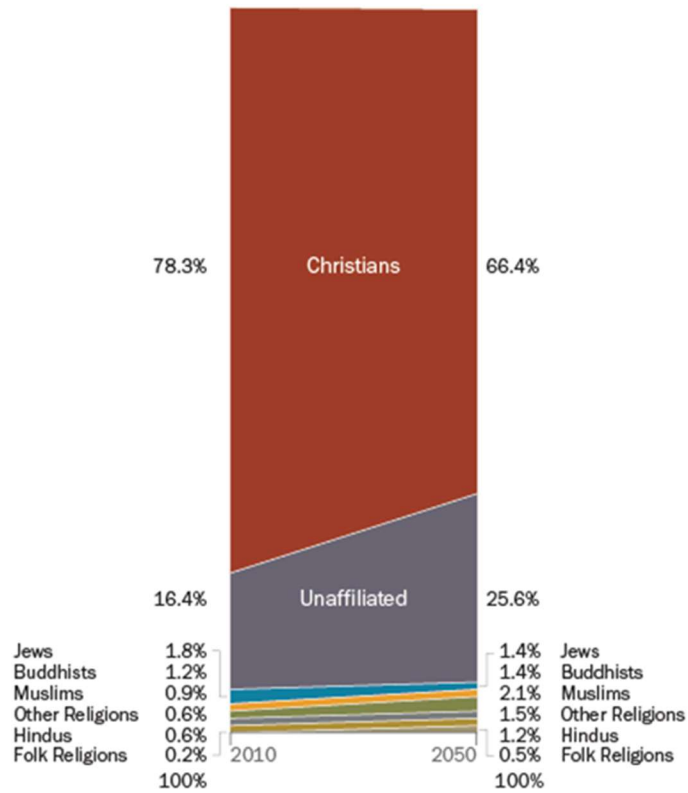
Appendix H (<https://www.cdc.gov/hrqol/wellbeing.htm#three>)

Survey	Questionnaires/questions
National Health and Nutrition Examination Survey (NHANES)	<ul style="list-style-type: none"> General Well-Being Schedule (1971–1975).^{43,44}
National Health Interview Survey (NHIS)	<ul style="list-style-type: none"> Quality of Well-being Scale.⁴⁵ Global life satisfaction. Satisfaction with emotional and social support. Feeling happy in the past 30 days.
Behavioral Risk Factor Surveillance System (BRFSS)	<ul style="list-style-type: none"> Global life satisfaction. Satisfaction with emotional and social support.^{47, 48}
Porter Novelli Healthstyles Survey	<ul style="list-style-type: none"> Satisfaction with Life Scale.⁴⁹ Meaning in life.⁵⁰ Autonomy, competence, and relatedness.⁵¹ Overall and domain specific life satisfaction. Overall happiness. Positive and Negative Affect Scale.⁵²

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

Appendix I

Religious Composition of the United States, 2010-2050



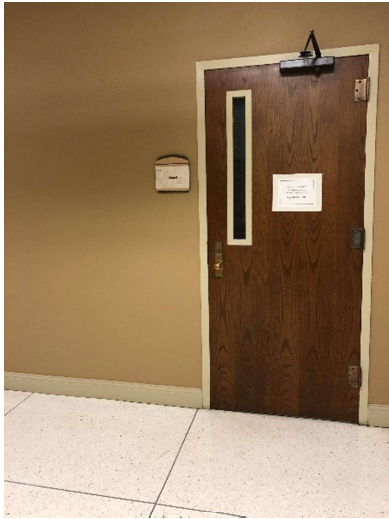
Figures may not add to 100% due to rounding.

Source: The Future of World Religions: Population Growth Projections, 2010-2050

PEW RESEARCH CENTER

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

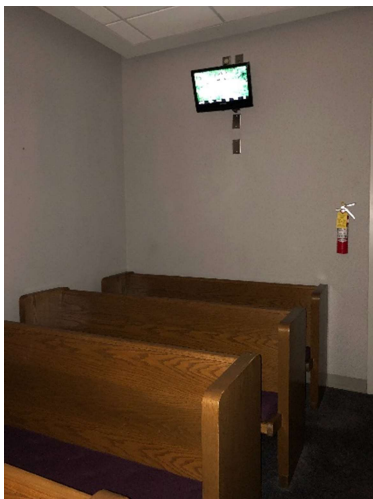
Appendix J Hospital B



Chapel Entrance off Main Corridor



Cross and Prayer Request Reliquary



Television (Sound)

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?



Prayer Space Entrance (Typical)



Prayer Space with Illuminated Cross



Furniture in Prayer Space

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?



Shrine at lobby

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

Appendix K Hospital D



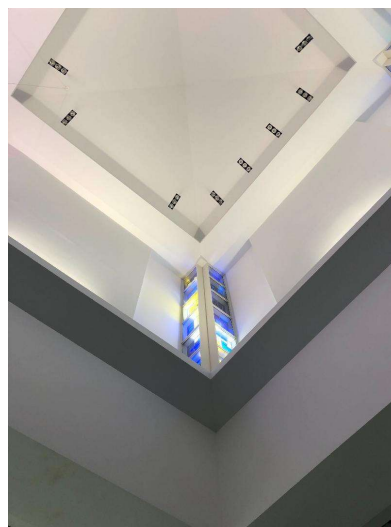
Chapel Entrance Façade



Exterior Across Traffic



View Across Nave



Tower at Nave

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?



Main Prayer Space Entry



Main Prayer Space Entry



Original Focus Wall at Main Prayer Space

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?



Focus Wall of Prayer Space and Furnishings



Art Piece at Main Prayer Space



Altar Used as Prayer Request

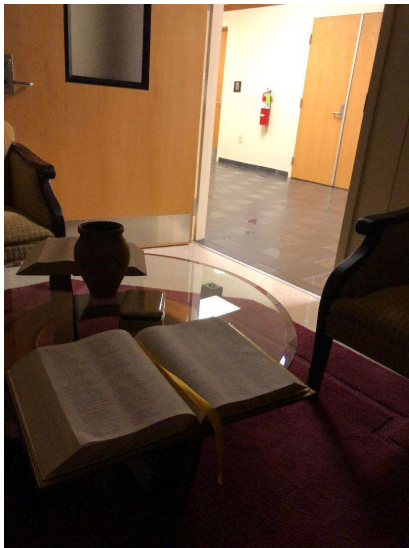
HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?



One of Several Prayer Spaces (Typical Furnishings)



View of Prayer Space from Corridor



Typical Prayer Space with Corridor Beyond

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

Appendix L Hospital K



Stain Glass Faces Reception Area



Chapel Space



View from Within Chapel Showing Lobby

HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

Appendix M Hospital B Chapel Renovation

n



HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

Appendix N Hospital D Promotional Chapel Pamphlet



HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?



HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

Appendix O St. Andrews Chapel Proposed



HOW DOES THE HEALTHCARE CHAPEL PROVIDE WELLBEING?

